

**Social Impacts of the Proposed Emergency Outlet
to Control Flooding at Devils Lake, North Dakota:
An Assessment of Environmental Justice**

U.S. Environmental Protection Agency, Region 8
Environmental Justice Program
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EXECUTIVE SUMMARY

Introduction and Background

Since the inception of Executive Order #12898, “Federal Actions to Address Environmental Justice in Minority and Low Income Populations” (February, 1994), federal agencies have increasingly acknowledged the importance of environmental justice considerations with regard to environmental decision-making. This study provides an assessment of the perceived social impacts of the emergency outlet proposed by the Army Corps of Engineers to control flooding in Devils Lake, North Dakota.¹ The study has been designed as a qualitative examination of perceived impacts of the proposed outlet on various communities surrounding Devils Lake, taking into account feedback from farmers, ranchers, Tribal members, residents of low-income communities, and others. An environmental justice assessment includes examining the following areas:

- demographics;
- disproportionate impacts;
- stakeholder involvement; and
- and potential benefits and burdens.

In light of these four areas, this study seeks to gain an understanding of:

- the demographics of the communities involved;
- level of public participation with regard to the scoping and decision-making processes;
- potential disproportionate environmental impacts (including human health, economic, and social effects) to low-income communities or federally recognized Tribes; and
- communities potentially benefitting from (or shouldering burdens from) the proposed project

By looking at these areas, an assessment can be made prior to federal decisions that takes into consideration the impacts to potential environmental justice communities.²

Environmental justice concerns have played an increasingly larger role in the National Environmental Policy Act (NEPA) review process. Clark and Canter point out that NEPA has been a principal avenue for public involvement in both the planning and decision-making processes of federal agencies.³ They add that NEPA’s broad mandate allows it to incorporate and integrate other regulatory requirements and emerging objectives, including biodiversity, conservation, environmental justice, and risk analysis. In addition, according to the

¹ Details of the proposed project can be found in the Draft Scoping Document, Devils Lake Emergency Outlet Environmental Impact Statement, dated June 1998.

² Environmental Justice Communities are defined as low-income communities, minority communities, or federally recognized Tribes. Please see complete definition on page 1.

³ *Environmental Policy and NEPA, Past, Present, and Future* Ray Clark and Larry Canter, eds. 1997.

Environmental Justice Guidelines under NEPA developed by the Council on Environmental Quality (CEQ) the Executive Order “recognizes the importance of research, data collection, and analysis... thus, data on (these) exposure issues should be incorporated into NEPA analysis as appropriate.”⁴ The U.S. Environmental Protection Agency, under Section 309 of the Clean Air Act, is authorized to review the environmental impacts of certain proposed actions of other federal agencies. Under this authority, and as a cooperating agency, EPA, Region 8, has assisted the U.S. Army Corps of Engineers, St. Paul District, in providing input on environmental justice considerations for the proposed Devils Lake emergency outlet. Goals of this study are:

- to examine the perceived impacts to various individuals and groups in the Devils Lake Region;
- to determine the potential environmental justice implications of the proposed Emergency Outlet; and
- to provide recommendations to the Army Corps of Engineers based on the study’s findings.

Methodology

Section 1508.14 of the Council on Environmental Quality NEPA regulation states that “when an environmental impact statement is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment.” Clark and Canter (1997) refer to a consensus outlined by the Interorganizational Committee for Social Impact Assessments (SIA), recommending that social, cultural, demographic, economic, social-psychological, and political impacts be considered. These factors have been emphasized in data collected for this study in order to examine the full range of perceived impacts of the proposed Devils Lake emergency outlet and how those perceptions vary between groups and individuals.

Sampling Strategy. A purposive sample⁵ was chosen for this study, since it was important to obtain opinions and ideas from individuals who had voiced particular interest in the proposed emergency outlet or specific ideas about other water management options for the Devils Lake area. For this reason, initial respondents for the study were obtained from reviewing written comments in the *Draft Scoping Document, Devils Lake Emergency Outlet Environmental Impact Statement*, U.S. Army Corps of Engineers (June, 1998). Initial participants were also obtained from news articles covering various aspects of Devils Lake flooding in North Dakota papers (between June and September 1998) in which specific individuals were quoted. Efforts were made to obtain respondents from all communities within the Devils Lake Region, as well as from the Spirit Lake Sioux Nation and communities downstream on the Sheyenne River. Snowball sampling techniques⁶ were used obtain additional participants, resulting in a final sample size of 45 respondents. Participants were initially contacted to inform them of the purpose of the study, to request their participation, and inform them that their participation was strictly voluntary.

⁴ *Environmental Justice: Guidance Under the National Environmental Policy Act*. Council on Environmental Quality. December 10, 1997. p. 3.

⁵ A purposive sample is one in which participants are selected based on specific experience or characteristics, in order to obtain particular kinds of data, and is not considered a random or probability sample.

⁶ Snowball sampling involves obtaining additional respondents for a study based on the recommendations or referral of other study participants. This is done in order to include a larger number of respondents in the sample who have similar experience or characteristics.

Initial interviews were conducted by telephone from January through April, 1999, and respondents were asked a specific set of questions. Question topics included respondents' assessment of solutions to flooding in Devils Lake, opinions on the proposed emergency outlet, perceived impacts to themselves and others of the proposed outlet, and assessments of the Army Corps of Engineers Scoping Process. A majority of interview questions were open-ended, providing the opportunity for individualized responses. In addition, respondents were encouraged to provide opinions and ideas on other topics related to water management in the Devils Lake area. Follow-up interviews were conducted from October, 1999 through January, 2000 to assess opinions and attitudes on recent developments in the Devils Lake Region and to obtain additional demographic and other information.

A central goal of this study was to determine whether low-income communities or federally recognized Tribes would shoulder a disproportionate burden or benefit (economically, environmentally, or culturally) as a result of the proposed outlet project. For this reason, emphasis was placed on examining the responses of communities in various regions of Devils Lake to compare and contrast the perceived impacts of the proposed project and other water management options. For analysis purposes, respondents were categorized by Tribal membership, and geographic proximity to Devils Lake.

Limitations of the Study. The primary limitation of a qualitative study such as this, is the inability to generalize the findings to the larger population in North Dakota or to the Devils Lake Region as a whole. However, based on the relative uniformity of responses between members of specific communities, these findings can be said to be fairly representative of perceptions and opinions within those communities. An additional limitation of this study is the relatively small sample size, resulting from both time and resource constraints. A larger number of respondents would allow the data to be more easily generalized to various areas of the Devils Lake Region and provide an opportunity for interview data to be "quantified" more substantially.

Data was collected on respondents' views on potential impacts of the proposed Emergency Outlet, which some may argue is less substantive than data collection based on "hard" facts. However, a goal of this study was to gain an understanding of the views those in the Devils Lake Region, and to determine the potential impacts to various communities based on information available to members of those communities. Findings from this study revealed a noticeable lack of definitive information available from agency sources on a number of issues, such as the impacts of the proposed outlet on the level of Devils Lake, on water quantity and water quality in the Sheyenne River, and impacts to Devils Lake flooding of upper basin drainage. Interview data showed that in many cases, respondents sought out local research institutions, engineers, geologists, and other professionals to inform their views. For this reason, it can be stated that respondents in this study represent an informed, educated group of individuals from various communities within the Devils Lake Region.

Findings

Demographics. In the Devils Lake Region, there is one federally recognized Tribe, the Spirit Lake Nation Sioux Tribe, south of Devils Lake. Other areas of Devils Lake do not include federally recognized Tribes or significant populations of communities of color. For this study, comparisons between Tribal and Non-Tribal respondents are used to assess differences in perceptions between federally recognized Tribes and other communities.

Low-income communities are located in Benson County, located south and southwest of Devils Lake, and in some communities along the Sheyenne River. For purposes of this study, a five-mile buffer on either side of the river between Cooperstown and Fort Ransom, was identified as the “downstream community”. Based on the percent of those living in poverty as compared to the State average, areas west and southwest of Devils Lake and in downstream areas are considered low-income communities, based on U.S. Census data. In order to assess differences in perceptions between respondents in low-income communities and respondents in other communities, comparisons are made between respondents from various geographic areas of the Devils Lake Region. In this report, these areas are referred to as “communities.”

For purposes of this study, Tribal respondents, respondents in communities west and southwest of Devils Lake, and the downstream community, are considered respondents from potential environmental justice communities. Responses of these groups are compared to those of other groups in examining disproportionate impacts, stakeholder involvement, and potential benefits and burdens of the proposed Emergency Outlet.

Benefits and Burdens. The study indicates mixed support for the proposed emergency outlet. To some degree, these findings illustrate a NIMBY (“not in my backyard”) attitude, in that those in one geographic area support an outlet only if it is constructed in another area of the Devils Lake Region, and not in their own community.

The two most likely outlet routes currently being considered (The Peterson-Coulee Route and the Twin Lakes Route) would be constructed through potential environmental justice communities. The Peterson-Coulee Route would run through the west end of Devils Lake in Benson County. Low-income residents in Benson County would shoulder a majority of burdens if an outlet is constructed along the Peterson Coulee Route. Similarly, the Tribal community on the Fort Totten Reservation would shoulder most of the burden if the Twin Lakes Route is chosen. It should be noted, however, that although a slight majority of Tribal respondents indicated that they did not want an outlet built, other Tribal respondents indicated that they favored an outlet, feeling that it would help alleviate flooding on the Fort Totten Reservation.

It is important to acknowledge the number of respondents in low-income communities and Tribal members that do not want any kind of outlet project built. The lack of consensus with regard to support of the proposed west end outlet project is significant, in that a number of respondents (primarily Tribal members and those from low-income communities) are not in favor of any outlet project, and see other alternatives as more beneficial to them. Such alternatives include letting nature take its course, minimizing or stopping upper basin drainage, and continuing infrastructure improvements.

Findings from this study also point to the need for more specific information on the impacts of upper basin drainage on Devils Lake. This appears to be an area of concern to many respondents in this study. Some Tribal respondents and many respondents in low-income areas have expressed concern about the potential economic, environmental, and other impacts to themselves and their communities. Based on the severity of these potential impacts, many of these respondents feel that if upper basin drainage is minimized or stopped completely, the proposed outlet may be unjustifiable or unnecessary.

Disproportionate Impacts. Many respondents, in all groups, viewed the town of Devils Lake, as well as farmers and ranchers in the surrounding area, as benefiting from the outlet. However, this view was more common among respondents from higher income communities and non-

Tribal communities. Tribal respondents, as well as respondents in low-income areas of the lake region tended to see the proposed outlet as primarily benefiting agencies, such as State officials, the Army Corps and its contractors, and saw little advantage of the outlet to themselves. Findings in this area may illustrate differences between Tribal members and those in low-income communities, as compared to other communities, in the perception of economic and political power. In addition, the data point to a need for a more comprehensive sharing of information with different publics on how the proposed outlet would be managed. Respondents who would be in the direct path of the proposed outlet have expressed concern about easements required for the pipeline and the lack of compensation provided for damage done to property as a result of outlet construction.

In terms of perceived impacts to themselves of the proposed outlet, Tribal respondents and respondents from low-income communities were far more likely than others to report concerns about damage to property, a decrease in property values, potential flooding, noise from pumps, flooding of roads and problems raising cattle. Respondents from these communities also tended to voice more awareness of the impacts to others of the proposed outlet. These findings point toward more disproportionate impacts perceived by potential environmental justice communities, and few, if any, adverse impacts perceived by more advantaged groups.

Stakeholder Involvement. Data from this study indicate that a majority of respondents, from all groups, feel that their views either have not been heard, or have been heard, but not acted on. These findings call into question the effectiveness of the current public involvement process. Comments from respondents in various communities indicate that different groups may need different types of involvement, such as focused outreach for Tribal members, as well as communities in which homes or livelihoods would be directly impacted by the proposed outlet project. Respondents in lower-income communities have also felt a greater need than others to take specific actions to insure that their interests have been represented. In some cases, these respondents felt that the efforts of their community groups were more effective than participation through more traditional channels, such as attending scoping meetings, or writing letters to the state and federal agencies involved.

Findings from this study also indicate that many respondents felt that the scoping process did not allow for or welcome input from the public. While some respondents believed that the Army Corps was simply following mandates already set for them, others felt that the scoping meetings should have considered a variety of viewpoints and options. Some respondents felt that these meetings should have been held as a forum for gathering information on public opinion instead of limiting the meetings to providing a set agenda of information about the proposed outlet project, as many respondents reported.

Data from this study suggest that since the proposed outlet routes would be constructed through low-income and/or Tribal communities, these potential environmental justice communities have felt inadequately represented, with little influence on actual decisions made with regard to the proposed outlet project. These concerns raise questions relative to the effectiveness of the traditional scoping process for identifying potential environmental justice issues, and for insuring adequate participation in the decision-making process by those that are potentially impacted.

Recommendations

As a result of information obtained from this study, recommendations are offered to the U.S. Army Corps of Engineers and other relevant agencies, with the goal of ensuring that environmental justice considerations are part of the NEPA decision-making process. As such, the following recommendations are offered:

- We recommend that specific attention be given to the impacts of the proposed Emergency Outlet to potential environmental justice communities in the Devils Lake Region. Based on information on poverty levels obtained from U.S. Census data, communities west and southwest of Devils Lake and the downstream community are determined to be potential environmental justice communities. In addition, as a federally recognized Tribe, the Spirit Lake Sioux Nation is also determined to be a potential environmental justice community.

Data from this study indicate that areas west and southwest of Devils Lake, Spirit Lake Nation, and the 5-mile buffer on either side of the Sheyenne River between Cooperstown and Fort Ransom are potential environmental justice communities. U.S. Census data indicate that these communities range from 15% to over 200% above the state levels for those living in poverty. In addition, Spirit Lake Nation is a federally recognized Tribe, and as such, is included under the Executive Order on Environmental Justice. The proposed Emergency Outlet would have potentially disproportionate impacts on communities west and southwest of Devils Lake, to the Fort Totten Reservation, and to the downstream community.

- We recommend that the following impacts to communities west and southwest of Devils Lake, and to Spirit Lake Nation be carefully considered as disproportionate impacts to potential environmental justice communities and be included in the NEPA decision-making process:
 - destruction of property from outlet construction;
 - decrease in property values;
 - noise pollution from outlet operation;
 - impacts on cultural resources; and
 - impacts on community and spiritual values.
- We recommend that the following impacts to the downstream community be fully considered as disproportionate environmental impacts to a potential environmental justice community, and included in the NEPA decision-making process:
 - the potential for serious flooding during seasonal heavy rains or rapid snowmelt;
 - severe bank erosion;
 - loss of trees and plants;
 - loss of wildlife habitat;
 - lack of access to roads, impacting economic stability for low-income farmers;
 - loss of cropland and pastureland; and
 - negative economic impacts to cattle operations, due to both water quality and quantity.
- It is also recommended that specific scientific data be provided to downstream residents, so that they may accurately assess potential impacts to their communities of the proposed Emergency Outlet. We recommend that definitive information be provided on the impacts of

the proposed emergency outlet on the Sheyenne River and on the subsequent impacts to downstream communities.

Respondents have serious concerns about potential impacts to water quality and water quantity as a result of Devils Lake water channeled from an outlet. In addition, these respondents question the effectiveness of the proposed outlet on the level of Devils Lake if flow rate is slow enough to avoid the Sheyenne River running at capacity year-round. A number of these respondents contend that if flow rates are high enough to impact the lake level as currently proposed, their communities would be in danger of serious flooding downstream during seasonal heavy rains or rapid snowmelt.

We also offer the following recommendations that are broader in scope, encompassing various communities in the Devils Lake Region, and the Region as a whole:

- We recommend that definitive information on environmental impacts and effectiveness of the proposed outlet on the level of Devils Lake be provided to members of the Spirit Lake Sioux Nation and to all community members in the Devils Lake Region. This includes empirical data specifying the amount of water expected to be removed annually by the proposed Emergency Outlet.

Respondents in some low-income communities feel that the proposed outlet would reduce lake levels by only a few inches per year. Considered in conjunction with perceived economic, environmental, and other impacts mentioned by low-income communities and federally recognized Tribes, respondents from these groups question whether the benefits of the proposed outlet project would outweigh the numerous costs involved to themselves and their communities. A goal set forth in NEPA is to “preserve important historic, cultural, and natural aspects of our natural heritage.”⁷ Considerations of impacts to cultural resources on Tribal lands should be included as part of this goal.

- We recommend that the Army Corps provide all potentially affected communities detailed information on logistical and financial management of the proposed outlet, and on compensation and easement rights that would affect private property and Tribal lands impacted by the proposed outlet path, should the outlet be approved. Effective public participation in the NEPA process should include providing information on potential effects and mitigation measures of the proposed project, in consultation with affected communities.

Some Tribal respondents have expressed concern about construction and management of an outlet that would be located through Tribal lands, indicating that the Spirit Lake Sioux Nation should be full participants in the decision-making process in terms of location, construction, operation, and maintenance of this outlet. In addition, some low-income respondents in the direct path of the proposed pipeline have expressed concern about mitigation measures, including easements required for the pipeline and lack of compensation provided for damage done to property as a result of outlet construction.

- We recommend that definitive information be provided on the impacts of upper basin drainage on the level of Devils Lake.

⁷ *Environmental Justice: Guidance Under the National Environmental Policy Act*. Council on Environmental Quality. December 10, 1997, pg. 7.

The lack of consistent responses from study participants on the impact of upper basin drainage on the flooding at Devils Lake indicates that empirically verifiable information on the affects of drainage needs to be made available to residents in all areas of the Devils Lake Region. As mentioned earlier, this variable is potentially important in assessing impacts of the proposed Emergency Outlet on specific communities. A number of respondents expressed the view that the outlet is unnecessary if upper basin drainage is minimized or discontinued.

- We recommend that the format and range of scoping meetings be expanded to take into consideration the needs and perspectives of diverse communities so that all participants are provided the opportunity to have their views included as part of the decision-making process.

A majority of respondents reported during the interviews that either they have not felt heard as a result of the scoping process, or felt heard, but did not feel that their views were acted upon. These findings bring into question the effectiveness of the scoping process for environmental justice communities in the Devils Lake area. Since the proposed paths of the Emergency Outlet are routed through low-income and Tribal communities, findings from this study point to a need for more focused outreach, considering different types of involvement for different populations.

- We also recommend that before scoping meetings are held, focused outreach efforts of the Corps of Engineers should include making assessments of the cultural values, character, and needs of each community.

Meetings and presentations should be specifically geared to address the concerns of diverse communities, collecting valuable input from residents and members, and providing information specific to their respective needs. CEQ guidelines for NEPA direct agencies to “acknowledge and seek to overcome linguistic, cultural, institutional, geographic, and other barriers to meaningful participation, and should incorporate active outreach to affected groups.”⁸ In some cases, it may be beneficial to utilize non-technical persons to make presentations -- individuals who have familiarity with a specific community, such as a Tribal community, and who understand the traditions of those communities and the values they hold. Cultural sensitivity and inclusiveness should be an integral component of the information sharing process.

It is the recommendation of EPA that in line with the requirements of Executive Order #12898 on Environmental Justice, these potential implications to low-income communities and the Spirit Lake Sioux Nation be carefully and thoroughly considered as part of the NEPA decision-making process for the proposed Emergency Outlet at Devils Lake. The recommendations offered above would support the consideration of environmental justice in decision-making about water management in the Devils Lake Region.

⁸ *Environmental Justice: Guidance Under the National Environmental Policy Act*. Council on Environmental Quality. December 10, 1997, p. 9.

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Introduction

Since the inception of Executive Order #12898, “Federal Actions to Address Environmental Justice in Minority and Low Income Populations,” federal agencies have increasingly acknowledged the importance of environmental justice considerations with regard to environmental decision-making. This study provides an assessment of the social impacts of the emergency outlet proposed by the Army Corps of Engineers to control flooding in Devils Lake, North Dakota.⁹ The study has been designed as a qualitative examination of perceived impacts of the proposed outlet on various communities surrounding Devils Lake, taking into consideration feedback from farmers, ranchers, Tribal members, residents of low-income communities, and others.

Environmental Justice Concerns

The concept of environmental justice refers to the right of every person to a safe and healthy environment. Numerous studies have demonstrated that federally recognized Tribes and low-income communities have traditionally shouldered a disproportionate share of environmental burdens,¹⁰ ranging from siting of toxic waste facilities to unsafe levels of exposure to air and water pollutants. CEQ advises federal agencies that disproportionate environmental impacts can include “ecological, cultural, human health, economic, or social impacts on minority communities, low-income communities, or Indian Tribes.”¹¹ Including environmental justice concerns prior to siting and project development decisions can help to reverse this trend and ensure that these communities are not disproportionately impacted. An environmental justice (EJ) assessment includes examining demographics, disproportionate impacts, stakeholder involvement, and benefits and burdens. By understanding the community demographics, the input they have had with regard to the decision-making process, whether low-income or federally recognized Tribes are disproportionately impacted by a proposed action, and who would benefit or shoulder burdens from the project, an assessment can be made prior to implementation that takes potential impacts to EJ communities into consideration.¹²

⁹ Details of the proposed project can be found in the Draft Scoping Document, Devils Lake Emergency Outlet Environmental Impact Statement, dated June 1998.

¹⁰ Benjamin Goldman and Laura Fitton, "Toxic Waste and Race Revisited." Center for Policy Alternatives, Washington, DC. June 1994.

¹¹ *Environmental Justice: Guidance Under the National Environmental Policy Act*. Council on Environmental Quality. Appendix A, p. 26

¹² Environmental Justice Communities are defined as low-income communities, minority communities, or federally recognized Tribes. Minorities are defined as individuals who are members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic Origin; or Hispanic. Minority populations should be identified where either: (a) the minority population of the affected area exceeds 50 percent, or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage to the general population or other appropriate unit of geographic analysis. Low-income populations in an affected area should be identified with the annual statistical poverty thresholds from the Bureau of the Census' current Population Reports (Series P-60) on Income and Poverty. In identifying low-income populations, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a set of individuals (such as migrant workers or Native Americans), where either group experiences common conditions of environmental exposure or effect.

Environmental Justice and Decision Making Under NEPA

Environmental justice concerns have played an increasingly larger role in the NEPA review process. Clark and Canter point out that NEPA has been a principal avenue for public involvement in both the planning and decision-making processes of federal agencies. They add that NEPA's broad mandate allows it to incorporate and integrate other regulatory requirements and emerging objectives, including biodiversity, conservation, environmental justice, and risk analysis¹³. The U.S. Environmental Protection Agency, under Section 309 of the Clean Air Act, is authorized to review the environmental impacts of certain proposed actions of other federal agencies. As part of this process, EPA, Region 8, in its role as a cooperating agency, has assisted the U.S. Army Corps of Engineers, St. Paul District, in highlighting environmental justice considerations for the proposed Devils Lake emergency outlet. The goal of this study is to examine the perceived impacts to various individuals and groups in the Devils Lake Region, and to determine whether a potential environmental justice situation exists with regard to the proposed emergency outlet.

Background

The Devils Lake Region of North Dakota encompasses a variety of communities and lifestyles (Fig. 1). Much of the area affected by the lake is agricultural, with grain farming and cattle ranching providing a livelihood for many residents in the area. Agriculture also plays a large role in the lives of many downstream communities who may potentially be impacted by the proposed emergency outlet. Other residents, especially those in the town of Devils Lake, do not rely as heavily on agriculture, and earn their living through small businesses or through the tourist or fishing industries.

The Spirit Lake Sioux Nation is located on the south side of Devils Lake. This community is also potentially impacted by the proposed outlet and has voiced issues of sovereignty with regard to stewardship of the lake and possible conflict with spiritual values and specific actions to control flooding at Devils Lake. A brief description of the communities in the Devils Lake Region is presented below.

As mentioned previously, the St. Paul, Minnesota District of the U.S. Army Corps of Engineers has been designated as the Lead Agency on the proposed Emergency Outlet at Devils Lake. At present, two west-end outlet routes are under consideration 1) the Peterson-Coulee Route, and 2) the Twin Lakes Route. An additional channel from Devils Lake to Stump Lake has been proposed by the State of North Dakota as a temporary measure to relieve flooding in Devils Lake. Although respondents in this study refer to the proposed Stump Lake channel and express their views and preferences in comparison to other outlet options, the focus of the present study is the proposed west-end outlet. The proposed outlet routes are illustrated in Fig. 2.

Communities North and Northwest of Devils Lake

These communities are approximately 10-30 miles north of Devils Lake and include the towns of Churchs Ferry, Hamden, Webster, and the City of Devils Lake. This area relies heavily on agriculture. Wheat, sunflower, canola, and other grains are staple crops. Farmers in some

¹³ *Environmental Policy and NEPA, Past, Present, and Future* Ray Clark and Larry Canter, eds. 1997, p. 22.

areas, such as Church's Ferry and the City of Devils Lake, have been impacted by flooding. Geographically, this area includes a number of natural marshland or wetland areas. Drainage of some of these wetlands is perceived by some to be a primary contributor to extensive flooding in Devils Lake. Proponents of wetland draining maintain that farmers in the area are dependent on this practice to ensure adequate acreage and harvest potential. In addition, some argue that it indirectly helps local businesses, as well as those in the City of Devils Lake, who serve as suppliers of goods and services to farm businesses and households.

Flooding is currently impacting some farms and residents in the northwest portion of Devils Lake, and will be exacerbated by heavy seasonal rainfall, or rapid snowmelt. Some who own property or businesses directly north of Devils Lake have already lost property to rising lake levels. The Federal Emergency Management Agency (FEMA) has replaced a number of homes on or near Devils Lake, and a large volume of previously lakefront property is currently underwater.

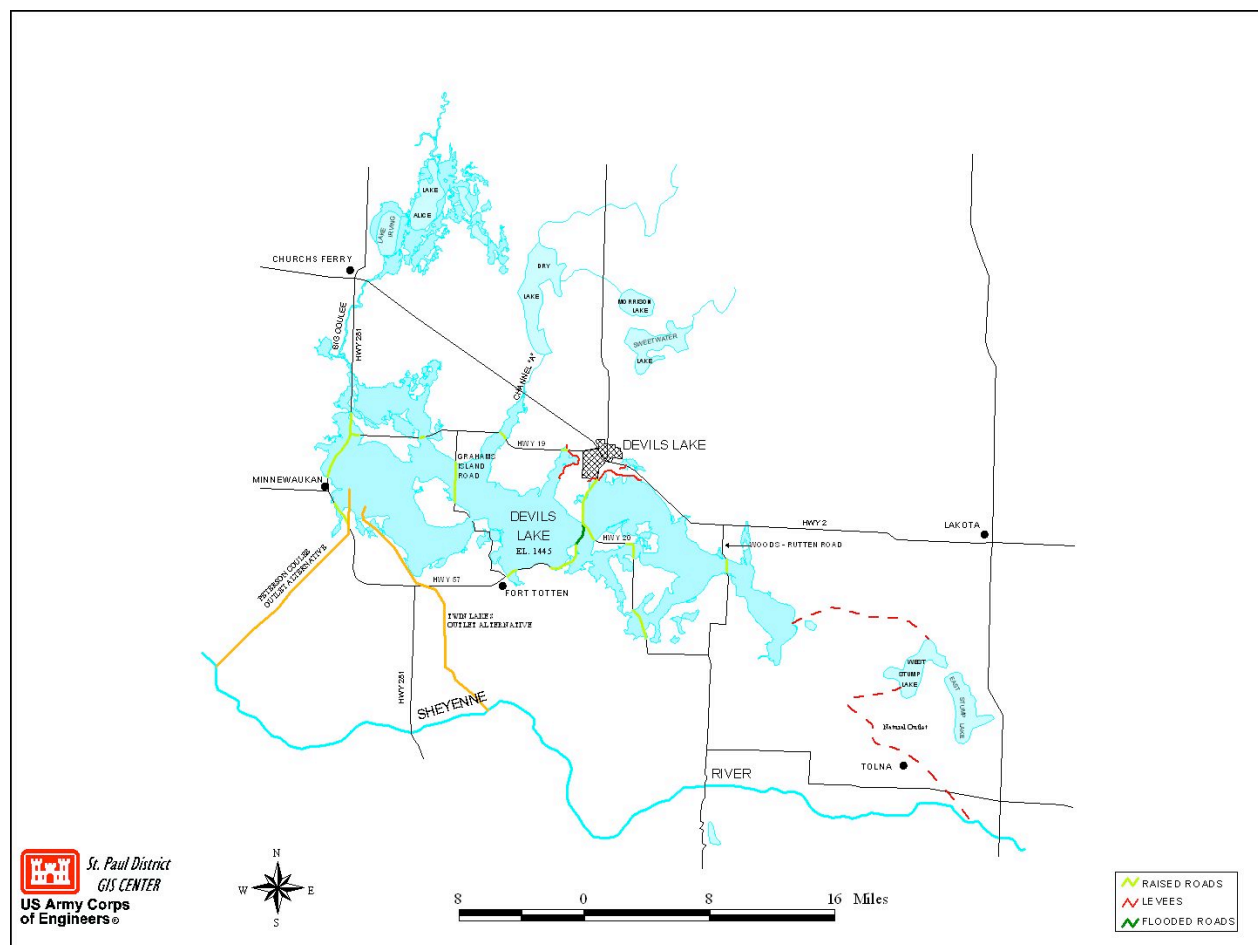


Fig. 1. Map of Devils Lake Region
Source: U.S. Army Corps of Engineers, St. Paul District

Devils Lake Water Diversions

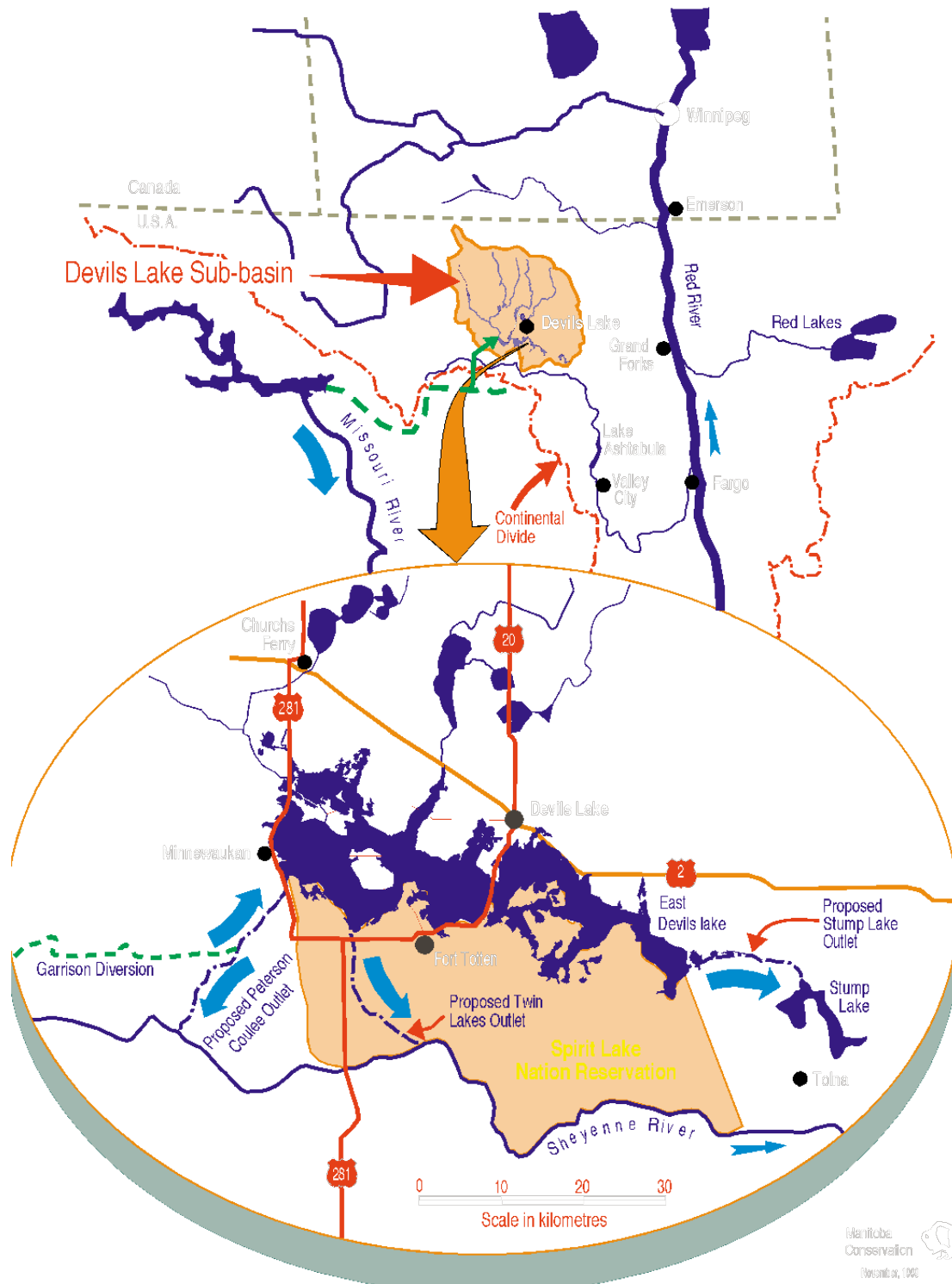


Fig. 2. Devils Lake Region and Proposed Outlet Routes

Source: <http://winnipeg.about.com/local/winnipeg/gi/dynamic/offsite.htm?site=http://www.gov.mb.ca/environ/pages/news/devlake/map.html>

Communities West and Southwest of Devils Lake

This area of the lake covers the western portion of Benson County and includes the towns of Maddock, Minnewaukan, and Sheyenne. This area is primarily agricultural and is characterized primarily by small to medium-size farms and a number of small communities, ranging in population from 100 to 600. Grains are a primary crop, and many farmers raise cattle as well. There is little industry in the area. Currently, the town of Minnewaukan is in danger of being flooded by rising levels of Devils Lake and at some point may have to consider a buyout, similar to the process now taking place farther north, in Churchs Ferry.

Residents in the towns of Maddock and Sheyenne are faced with the potential of the proposed Emergency Outlet being built through their property. If the Peterson-Coulee Route is chosen, it would impact many acres of farmland and pastureland in and near the town of Maddock. If the Twin Lakes Route is chosen, it would impact farmland and pastureland on the Fort Totten Reservation as well as areas in and around the town of Sheyenne.

Spirit Lake Nation

The Fort Totten Reservation comprises this area of the Devils Lake Region. This eastern portion of Benson County includes the towns of Ft. Totten, St. Michael, Tokio, and Warwick. While some areas are agricultural, some residents own small businesses or work on the Reservation. Lake levels are a problem for some members of Spirit Lake Nation. In previous years, houses and businesses have been relocated due to rising floodwaters. Some Tribal members have also lost cropland due to flooding.

In contrast, Tribal members in other areas of the Reservation have not been directly impacted by fluctuating lake levels, but would be impacted by the Twin Lakes Route for the proposed Emergency Outlet. For Spirit Lake Nation, issues of Tribal sovereignty and preservation of cultural values, and spiritual and cultural resources are priorities with regard to the proposed outlet project. Cultural and spiritual resources include historic and sacred sites near the lake. Areas of Devils Lake (referred to as “Spirit Lake” by many Tribal members), are used as spiritual grounds.

Stump Lake Area

This area involves the eastern part of Nelson County and includes Stump Lake and the cities of Tolna and Lakota. Agriculture provides a livelihood for a majority of people in this area. Wheat, barley, canola, and sunflowers are staple crops. Small to medium-sized cattle operations are also prevalent in this area. This area houses the Stump Lake National Wildlife Refuge, one of the nation’s oldest wildlife refuges, which could be impacted by a natural overflow into Stump Lake if Devils Lake gets too high. As in other areas of North Dakota, farmers struggle with depressed market prices for cattle and crops.

Potential flooding is a concern for those with property close to Stump Lake. However, the proposed Emergency Outlet routes would not directly impact this area, so for the proposed west-end outlet, environmental justice considerations may not be applicable for this community. However, a separate project is currently being proposed that would channel water from Devils Lake into Stump Lake. If this project is approved, this community could be significantly affected

by flooding and other structural and economic impacts. A separate environmental justice analysis for that project was provided to the U.S. Army Corps of Engineers Office in Bismarck, North Dakota in October, 1999.¹⁴

The Downstream Community

This area encompasses cities and towns near the Sheyenne River, including Valley City, Kathryn, Cooperstown, and Ft. Ransom. For purposes of this study, a five-mile buffer on either side of the river between Cooperstown and Fort Ransom, was identified as the “downstream community.” While some property owners in this area run small to medium-sized cattle ranches, many grow beans, grains or feed. There is also a mix of small business and industry in this area, with a state university at Valley City also providing employment. Direct flooding from Devils Lake is not a problem in the area at this time. However, water quality and quantity, and related problems (such as bank erosion, tree loss, silt, and sedimentation) are areas of concern when considering the potential impacts of the proposed outlet. Some opinions have been expressed about the dangers of water brought from the proposed Devils Lake outlet, creating a situation whereby the Sheyenne River runs at capacity year round. Combined with seasonal heavy rains or rapid snowmelt during the year, some feel that the potential for severe flooding is a serious concern.

Red River Communities

These communities include cities and towns along the Red River, including Fargo and Grand Forks. This area is characterized by a mix of urban and rural communities. Communities along the Red River are not directly impacted by flooding from Devils Lake at this time. The potential impacts of the proposed Emergency Outlet to this area center on issues of water quality if Devils Lake water is channeled into the Red River by way of the Sheyenne River.

Methodology

This study was designed as a social impact assessment that emphasizes considerations of environmental justice with regard to the proposed Emergency Outlet at Devils Lake. Section 1508.14 of the Council on Environmental Quality (CEQ) NEPA regulation states that “When an environmental impact statement is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment.” In addition, Clark and Canter refer to a consensus outlined by the Interorganizational Committee for Social Impact Assessments (SIA) which includes the recommendation that social, cultural, demographic, economic, social-psychological, and political impacts need to be considered¹⁵. These factors have been emphasized in data collected for this study in order to examine the full range of perceived impacts of the proposed Devils Lake emergency outlet and how those perceptions vary between groups and individuals.

The focus of data collection efforts for this study was on obtaining opinions on potential impacts of the proposed outlet from respondents in various communities of the Devils Lake

¹⁴ See *Summary of Devils Lake Flooding Issues Affecting the Stump Lake Area*. U.S. EPA, Region 8, Environmental Justice Program. October 25, 1999.

¹⁵ *Environmental Policy and NEPA, Past, Present, and Future* Ray Clark and Larry Canter, eds. 1997, p. 238.

Region. Public comments received in the U.S. Army Corps of Engineers Draft Scoping Document demonstrate that community members in the Devils Lake Region are highly educated and informed with regard to the proposed outlet project and to the potential impacts on their specific communities, homes, and farmsteads.

Many community members have sought out research studies or the opinions of professionals on the potential impacts of the proposed Emergency Outlet, such as the impacts of upper basin drainage on Devils Lake levels; potential water quality issues affecting the Sheyenne River; noise levels and impacts on property values that would result from outlet construction and operation on their property; and impacts to existing infrastructure, including access to grain elevators, hospitals and emergency medical services. Some communities have formed associations to further their views of the potential impacts and costs to their communities, some even becoming involved in litigation regarding potential impacts of the proposed outlet project and related flooding issues. Obtaining the ideas and input of these community members, therefore, offers an ideal opportunity to assess various impacts of the proposed Emergency Outlet on Devils Lake communities, and to help insure that the views of community members are heard and considered as part of the NEPA decision-making process for this project.

Sampling

A purposive sample was chosen for this study, since it was critical to obtain opinions and ideas from individuals who had voiced particular interest in the proposed emergency outlet or specific ideas about other water management options for the Devils Lake area.¹⁶ For this reason, initial respondents for the study were obtained from reviewing written comments in the Draft *Scoping Document, Devils Lake Emergency Outlet Environmental Impact Statement*,¹⁷ Initial participants were also obtained from news articles covering various aspects Devils Lake flooding in North Dakota papers (between June and September 1998) in which specific individuals were quoted.

A probability (or random) sample was not used for this study since it was critical to obtain opinions and information from those who had some knowledge about the proposed outlet and/or had expressed interest in the Corps of Engineers Scoping Process on this project. A probability sample may have resulted in a number of respondents who had little knowledge of the proposed project, or who resided in areas of the various counties that would be unaffected by the proposed outlet plans. Rationale for employing this sampling technique is discussed by William M. Trochim, Cornell University:

*In purposive sampling, we sample with a purpose in mind. We usually would have one or more specific predefined groups we are seeking. Purposive sampling can be very useful for situations where you need to reach a targeted sample quickly and where sampling for proportionality is not the primary concern. With a purposive sample, you are likely to get the opinions of your target population....*¹⁸

¹⁶ A purposive sample is one in which participants are selected based on specific experience or characteristics, in order to obtain particular kinds of data, and is not considered a random or probability sample.

¹⁷ U.S. Army Corps of Engineers, St. Paul, MN District. June, 1998.

¹⁸ "Research Methods Knowledge Base." by William M. Trochim, Cornell University. <http://trochim.human.cornell.edu/kb/sampnon.htm>

The *Air University Sampling and Surveying Handbook* provides additional explanation for the use of a purposive sampling design:

*The researcher intentionally selects the samples in such a way that one possesses the causal (independent) variable and one does not. The purpose of the research governs the selection of the sample and, thus, excludes members of the population who do not contribute to that purpose.*¹⁹

Efforts were made to obtain respondents from all communities within the Devils Lake Region, as well as from Spirit Lake Nation and downstream communities. Fig. 2 illustrates the location of study respondents. Snowball sampling techniques were used to obtain additional participants, resulting in a final sample size of 45 respondents.²⁰ Participants were initially contacted to inform them of the purpose of the study, to request their participation, and inform them that their participation in the study, as well as providing answers to any and all questions was strictly voluntary. Fig. 3 indicates the geographic location of study participants.

Interview Format and Scope

Interviews were conducted by telephone (with one exception in which a participant was interviewed in person), ranging from 45 to 90 minutes in length, and respondents were asked a specific set of questions (see Appendix A). Initial interviews were conducted between January and April, 1999. Question topics for these interviews included respondents' assessment of solutions to flooding in Devils Lake, opinions on the proposed emergency outlet, perceived impacts to themselves and others of the proposed outlet, and assessments of the Army Corps of Engineers Scoping Process. A majority of interview questions were open-ended, providing the opportunity for individualized responses. In addition, respondents were encouraged to provide opinions and ideas on other topics related to water management in the Devils Lake area. Follow-up interviews were conducted from October, 1999 through January, 2000 to assess opinions and attitudes on recent developments in the Devils Lake Region and to obtain additional information on income and other demographic variables. Upon completion of interviews, respondents were thanked for their time and participation in the study.

Data Analysis Strategy

Field notes from interviews were entered into a database format. Code categories were developed to capture central themes and ideas from the interview data. Coded information was entered into a spreadsheet program, in order to observe trends and relationships within the data. Other specific comments were categorized into major topic areas and recorded in word-processing format. The data were analyzed from a variety of perspectives. Relationships were examined between demographic variables (Tribal membership and geographic proximity to Devils Lake) and responses about control of flooding in Devils Lake and on the proposed emergency outlet. Demographic variables were also used to compare participants' awareness of, and participation in the Army Corps Scoping Process, the process of community involvement, perceived impacts to themselves and others, and environmental and structural impacts of the proposed Emergency Outlet.

¹⁹ *Air University Sampling and Surveying Handbook*. Air University, U.S. Air Force, Office of Academic Affairs. <http://www.au.af.mil/au/hq/selc/smplIntro.htm>

²⁰ Snowball sampling involves obtaining additional respondents for a study based on the recommendations or referral of other study participants. This is done in order to include a larger number of respondents in the sample who have similar experience or characteristics

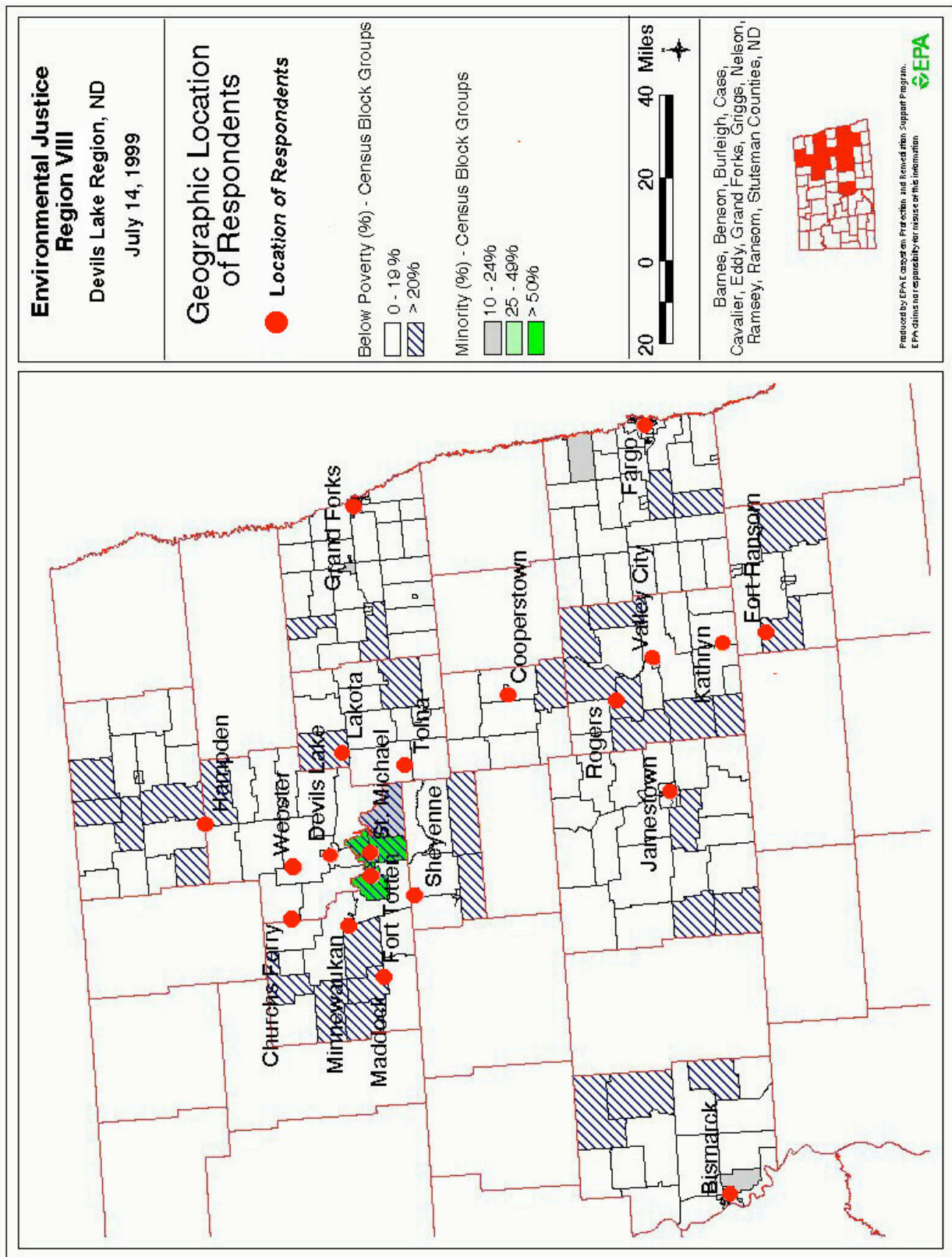


Fig. 3. Geographic Location of Respondents
Source: EPA Region 8, GIS Department

A central goal of this study was to determine whether low-income communities or Tribal members would shoulder a disproportionate burden (economically, environmentally, or culturally) as a result of the proposed outlet project. For this reason, emphasis was placed on examining the responses of communities in various regions of Devils Lake to compare and contrast the perceived impacts of the proposed project and other water management options. For analysis purposes, respondents were categorized by Tribal membership, and geographic proximity to Devils Lake (referred to as “communities” in this study).

Limitations of the Study

The primary limitation of a qualitative study such as this, is the inability to generalize the findings to the larger population in North Dakota or to the Devils Lake Region as a whole. However, based on the relative uniformity of responses between members of specific communities, these findings can be said to be fairly representative of perceptions and opinions within those communities. An additional limitation of this study is the relatively small sample size, resulting from both time and resource constraints. A larger number of respondents would allow the data to be more easily generalized to various areas of the Devils Lake Region and provide an opportunity for interview data to be “quantified” more substantially.

Data was collected on respondents’ views on potential impacts of the proposed Emergency Outlet, which some may argue is less substantive than data collection based on “hard” facts. However, a goal of this study was to gain an understanding of the views those in the Devils Lake Region, and to determine the potential impacts to various communities based on information available to members of those communities.

Findings from this study revealed a noticeable lack of definitive information available from agency sources on a number of issues, such as the impacts of the proposed outlet on the level of Devils Lake, on water quantity and water quality in the Sheyenne River, and impacts to Devils Lake flooding of upper basin drainage. Interview data showed that in many cases, respondents sought out local research institutions, engineers, geologists, and other professionals to inform their views. For this reason, it can be stated that respondents in this study represent an informed, educated group of individuals from various communities within the Devils Lake Region.

Initial Findings

As mentioned in the previous section, environmental justice assessments involve examining various aspects of a proposed project. For this study, the data on the proposed Devils Lake emergency outlet were examined in light of four key aspects of environmental justice: *demographics*, *disproportionate impacts*, *benefits and burdens*, and *stakeholder involvement*. In addition, the data included other concerns, such as ideas and overall attitudes with regard to water management for the Devils Lake Region and for North Dakota as a whole; other ideas for outlet projects; suggestions for other water management options; and comments on the political process with regard to the outlet and other options.

Demographics

The Executive Order on Environmental Justice (#12898) focuses attention of federal agencies on the human health and environmental conditions of federally recognized Tribes and low-income communities. Goals of this Executive Order include fostering non-discrimination in federal programs that substantially or potentially affect human health and the environment, and providing these communities with greater opportunities for public participation in, and access to public information on matters relating to the environment or human health. The provisions of the NEPA provide for considerations of environmental justice in the environmental impact assessment process. In addition to issues of health and environmental degradation, such considerations can include impacts to natural, cultural, community, or economic resources.

The population of the Devils Lake Region includes both low-income communities and federally recognized Tribes. Federally recognized Tribes in this area consist primarily of Native Americans living on or near the Fort Totten Reservation, south of Devils Lake. In addition, according to U.S. Census data, low-income communities exist within Benson County (west of Devils Lake), on the Fort Totten Reservation (south of Devils Lake), and parts of Barnes County (south-southeast of Devils lake)²¹. For this reason, responses from participants in these three areas are contrasted with responses of participants from other areas of the Devils Lake Region.

Demographics of the Study Sample

The sample for this study consisted of 45 respondents. Of this total, 20% identify themselves as Native American. The percent minority for the State of North Dakota, as a whole, is 5.9%²². Respondents for this study are equally distributed between low, medium, and high income groups, although a small number of respondents preferred not to report this information. It is important to note that the Executive Order on environmental justice directs agencies to focus attention on potential impacts or burdens to low-income, minority, and Tribal *populations*. Therefore, assessments of federal actions should be based on community, municipal, or regional level data. The selection of the unit of analysis should reflect the potential impacts to environmental justice communities. In this case, location of proposed outlet routes and downstream impacts to the Sheyenne River could potentially impact such communities. Therefore, it is more effective to assess impacts to various *communities* in the Devils Lake Region, by using the *collectivity of responses* from individuals in those communities, than by focusing on specific impacts to individual respondents.

The distribution of respondents was relatively equal among the six community groups, with Spirit Lake Nation having the highest number of respondents (Table 1). In addition, respondents are located (geographically) throughout the various communities, with the exception of the Red River Communities, for which respondents are located primarily in the Cities of Fargo and Grand Forks.

²¹ Low-income communities are defined as those in which the poverty population is greater than 14%, which represents a rate 20% above the State average. According to 1990 U.S. Census figures, poverty population for the entire State of North Dakota is 11.9%.

²² 1990 U.S. Census, Census Tract Group Level.

Table 1. Number of Respondents by Community

Community	Total No.	% Total
North and Northwest Communities	7	16
West and Southwest Communities	6	13
Spirit Lake Nation	9	20
Stump Lake Area	7	16
Downstream Community	8	18
Red River Communities	8	18
Totals	45	100

Demographics of the Devils Lake Communities

As mentioned earlier, data is analyzed at the community level (defined as geographic proximity to Devils Lake), since potential impacts of the proposed Emergency Outlet (as well as potential benefits and burdens) vary considerably between specific areas of the Devils Lake Region.

North and Northwest Communities. This area of the Devils Lake Region (primarily Ramsey County) does not include significant community of color populations. U.S. Census estimates for 1996 indicate that the poverty rate in Ramsey County is 13.5%, slightly higher than the poverty rate for the State (11.9%). Median household income for Ramsey County is \$28,432, just under the State average of \$29,321, based on 1996 estimates.²³ Since these figures are close to averages for the state as a whole, these communities are not considered as potential environmental justice communities for this study.

West-Southwest Communities. According to 1996 U.S. Census estimates, the percent of those living in poverty in Benson County is 28.3. This rate is more than double the estimated rate for the State of North Dakota, which is 11.9%. In addition, median household income for Benson County (\$21,021) is well below the median household income for the State as a whole (\$29,321).²⁴ In a separate analysis of North Dakota Counties based on U.S. Census data (by EPA Region 8), Benson County falls two standard deviations below the state average with regard to the poverty ratio, and ranks third (out of 53 counties) with regard the highest percent of those living in poverty. Based on these figures, Benson County (which includes communities west and southwest of Devils Lake, as well as Spirit Lake Nation) can be considered a potential environmental justice community. Therefore, according to the Executive Order on Environmental Justice, the impacts on these residents of the proposed west-end outlet should be given particular consideration.

Spirit Lake Nation. As mentioned above, Benson County as a whole can be considered an environmental justice community due to the fact that both poverty rates and median household income is well below the state averages. More specifically, however, for Spirit Lake Nation, median household income for the towns of St. Michael and Fort Totten (both on the Fort Totten Reservation) are \$14,615 and \$10,833 respectively. These figures range from 46% to 53% below

²³ Figures based on July, 1996 estimates for North Dakota by the U.S. Census Bureau.

²⁴ Ibid.

the state average²⁵. In addition, Spirit Lake Nation is considered a federally-recognized Tribe and falls under the Executive Order. Percent minority for the State of North Dakota is 5.9%, as compared to 38.93% for Benson County, which encompasses Spirit Lake Nation. In accordance with the Executive Order on Environmental Justice, it is critical that this community be given particular consideration with regard to the potential impacts of the proposed Emergency Outlet.

Stump Lake Area. For purposes of this analysis, the area surrounding Stump Lake and parts of Nelson County are not considered to be a potential environmental justice community. However, although the poverty level for Nelson County is similar to the State average of 11.9%, household median income for the County (\$23,537) is almost 20% below the state average of \$29,321 (based on 1996 U.S. Census estimates). In addition, according to Records Personnel, Nelson County has a high percentage of retired or elderly among its population. Therefore, other proposed Devils Lake projects in the Stump Lake area should be given specific consideration.²⁶

The Downstream Community. The corridor housing the communities along the Sheyenne River encompasses parts of several counties. Therefore, it is not feasible to use county level data for these communities. Using a Geographic Information System, communities in this area were defined by creating a five mile buffer on either side of the Sheyenne River between Cooperstown and Fort Ransom, ND. The geographic areas included in this buffer will be referred to as the “downstream community” for purposes of this analysis. The percent of those in poverty within this buffer area is 15.26%, approximately 28% above that of the State (11.9%). For this reason, the downstream communities in this buffer can be characterized as a potential environmental justice community.

Red River Communities. For purposes of this study, communities along the Red River are not considered potential environmental justice communities. Demographics indicate that there are not significant minority populations in this area, and the percentages of those in poverty in Grand Forks (10.9%), Traill (10.5%) and Cass Counties (8.9%) are under the percent for the State of North Dakota (11.9%). In addition, median household incomes for these three counties exceed that of the state as a whole.

Benefits and Burdens: Preferences for the Proposed West-End and Other Outlet Options

Interviews with respondents solicited their opinions of what should be done overall to deal with the flooding in Devils Lake and specific opinions on the proposed emergency outlet and other outlet options. Responses varied between Tribal and non-Tribal respondents and also between different communities within the Devils Lake Region (Tables 2-4). A large number of respondents mentioned other ideas or suggestions for outlet projects. These comments are listed by topic area in Appendix B.

²⁵ Figures are based on 1990 U.S. Census figures. Median household income for the State of North Dakota in 1990 was \$23,213.

²⁶ See *Summary of Devils Lake Flooding Issues Affecting the Stump Lake Area*. U.S. EPA, Region 8, Environmental Justice Program. October 25, 1999.

Comparison of Tribal and Non-Tribal Respondents

Table 2 illustrates the percentage of Tribal and non-Tribal respondents favoring the currently proposed west-end outlet project, as well as other outlet options. Tribal respondents were more likely (56%) to be opposed to any outlet project, although 11% supported an east-end outlet, and 33% favored construction of a west-end outlet. These findings indicate that for Tribal respondents in this study, the perception of a negative impact to Spirit Lake Nation from the proposed outlet (or other outlet options) varies between Tribal members. Some Tribal respondents mentioned having a spiritual connection with the lake, noting the importance of human communities' adapting to the natural ebb and flow of the lake. Others mentioned difficulties with the current flooding situation, noting that their homes, businesses, or property had been flooded. These respondents felt that an outlet would help their current situation and allow them to recover homes or property currently underwater. Some Tribal respondents were only supportive of the proposed outlet if handling of the project and appropriations were given to Spirit Lake Nation. It should be noted here that the official position of the Spirit Lake Nation Tribal Council on the outlet is that they have no objections to the proposed Emergency Outlet as long as all treaty obligations are honored, and all federal environmental regulations are followed.²⁷

The largest percentage of non-Tribal respondents (36%) preferred that an outlet be built from the east end of Devils Lake, while the second largest percentage (33%) of these respondents do not want any type of outlet built. Some of these respondents felt that the lake needs to be left to follow its natural path, while others felt either that an outlet would not be cost-effective, or that it would be minimally effective in lowering the level of Devils Lake. Only 17% preferred of non-Tribal respondents favored the currently proposed west-end outlet. A slightly larger percent (19%) mentioned that they would prefer to have stayed with the original Garrison-Diversion Plan that included both an inlet and an outlet to stabilize Devils Lake. Another 17% were in favor of the recent proposal to store excess water in Stump Lake, without constructing an outlet to the Sheyenne River.

Table 2. Support for Outlet Projects by Non-Tribal Respondents and Tribal Respondents

Description	Tribal Respondents		Non-Tribal Resp. N = 36	
	#	%	#	%
Supports an east-end outlet	1	11	13	36
Supports a west-end outlet	3	33	6	17
Supports an inlet/outlet project (original Garrison Diversion plan)	1	11	7	19
Supports channel to Stump Lake	1	11	6	17
Doesn't support any kind of outlet	5	56	12	33
Other outlet solutions or comments on outlet proposals*	4	44	24	66

* See Appendix B

²⁷ Information obtained from the Tribal Assistance Program, EPA Region 8.

Comparison of Various Communities in the Devils Lake Region

Support for various outlet options by various communities in the Devils Lake Region is illustrated in Table 3. A majority of respondents in communities north and northwest of Devils Lake favor an east-end outlet (86%), while 57% support a plan similar to the original Garrison Diversion Project that includes both an inlet and an outlet to stabilize lake levels. Fourteen percent support a west-end outlet, while another 14% favor a channel from Devils Lake into Stump Lake. None of the respondents in these communities prefer that no outlet project be built.

Fifty percent of respondents from communities west of Devils Lake support an east-end outlet, while 33% do not support an outlet of any kind. As mentioned in the discussion of Table 2, a slight majority of respondents from Spirit Lake Nation do not support any kind of outlet project, while 33% do support the proposed west-end outlet. A majority of communities in the Stump Lake area favor a west-end outlet, while 43% support an outlet from the east end of Devils Lake, as long as there is a corresponding outlet to the Sheyenne River. To some degree, these data reflect a NIMBY (“not-in-my-backyard”) sentiment among respondents, whereby an outlet project to control flooding is supported as long as it is not built in their own community.

A majority of respondents from downstream communities (88%) do not support any kind of outlet project, believing that severe water quality and flooding problems on the Sheyenne River would result. One respondent would support the proposed channel from Devils Lake to Stump Lake. Respondents from Red River communities are somewhat mixed in their support of various outlet proposals. Thirty-eight percent do not support any kind of outlet, while another 38% would support channeling water into Stump Lake. A small percentage of Red River respondents support an east-end outlet (13%), the proposed west-end outlet (13%), and inlet/outlet project from Devils Lake (13%).

These findings reflect a large degree of variability between various communities in the Devils Lake Region in terms of support for various outlet projects. Overall, there is a noticeable lack of support for the proposed west-end outlet when all sample groups are combined (Table 4). In addition, when all respondents are combined, the largest percentage does not favor any kind of outlet project. This suggests the need for alternatives to the proposed west-end outlet to be more fully considered.

Table 3. Support for Outlet Projects by Community

Description	North-Northwest N = 7		West-Southwest N = 6		Spirit lake Nation N = 9	
	#	%	#	%	#	%
Supports an east-end outlet	6	86	3	50	1	11
Supports a west-end outlet	1	14	0	0	3	33
Supports an inlet/outlet project	4	57	0	0	1	11
Supports channel to Stump Lake	1	14	1	17	1	11
Doesn't support any kind of outlet	0	0	2	33	5	56
Other solutions/comments on outlet proposals*	5	71	1	17	4	44

Description	Stump Lake Area N = 7		Downstream Communities N = 8		Red River Communities N = 8	
	#	%	#	%	#	%
Supports an east-end outlet	3	43	0	0	1	13
Supports a west-end outlet	4	57	0	0	1	13
Supports an inlet/outlet project	2	29	0	0	1	13
Supports channel to Stump Lake	0	0	1	13	3	38
Doesn't support any kind of outlet	0	0	7	88	3	38
Other solutions/comments on outlet proposals*	7	100	3	38	5	63

* See Appendix B

Table 4. Support for Outlet Projects - All Respondents*

Description	No.	%*	Total N
Doesn't support any kind of outlet	18	40	45
Supports an east-end outlet	14	31	45
Supports a west-end outlet	9	20	45
Supports an inlet/outlet project (original Garrison Diversion plan)	8	18	45
Supports a channel from Devils Lake to Stump Lake	7	16	45

* Some respondents mentioned more than one preference

Preferences for Other Water Management Options

Table 5 illustrates other water management options mentioned by Tribal and non-Tribal respondents. These responses reflect answers to an open-ended question of what should be done to control flooding in Devils Lake. Responses in this area were not numerous enough to compare by various communities.

There is a degree of similarity between the responses for Tribal and non-Tribal respondents. The largest percentage of responses for both groups was to acknowledge that the lake levels fluctuate in a natural cycle (and that they are now in a wet cycle). This idea was mentioned by 56% of Tribal respondents and 42% of non-Tribal respondents. The data also showed that 25% of non-Tribal respondents and 22% of Tribal respondents felt that it was important to modify the

way they live to accommodate the fluctuating lake levels, with some respondents voicing the idea that development around Devils Lake is geographically appropriate. Tribal respondents were more likely (44%) than non-Tribal respondents (22%) to express the view that nature needs to be allowed to take its course. In other words, that nature knows what its doing, and there is no need to build man-made structures to control the flooding. Some Tribal respondents mentioned that an outlet project would violate their cultural or spiritual values regarding their stewardship of the lake. Similarly, 33% of Tribal respondents felt that the aquifer beneath Devils Lake is a large part of the flooding problem, and that this may negate the effectiveness of an outlet, simply refilling the lake as the level decreases. In comparison, only 17% of non-Tribal respondents expressed this view.

Twenty-two percent of Tribal respondents and 11% of non-Tribal respondents reported that they don't feel that there is a good solution to the current flooding problems. Many of these individuals felt that no one solution would effectively address the needs of all regions of Devils Lake, and that whatever plan was chosen, one or more groups of people would be dissatisfied with the outcome. Fourteen percent of non-Tribal respondents felt that what is most needed is to develop a comprehensive statewide water management plan, and a few (8%) felt that the best solution would be to move the town of Devils Lake to another location.

A large number of respondents mentioned other ideas for controlling flooding in the Devils Lake Region. These comments are listed by topic area in Appendix C. They include comments on natural processes, man-made influences, Tribal views, impacts to human communities, and policy-related comments.

Table 5. Assessment of Other Options to Control Flooding in Devils Lake

Description	Tribal Respondents		Non-Tribal Resp. N = 36	
	#	%	#	%
Realize that the lake levels fluctuate in a natural cycle, and that it's now in a wet cycle	5	56	15	42
Modify the way we live to accommodate fluctuating lake levels/DL not the right place for development	2	22	9	25
Let nature take its course (don't create any man-made structures)/nature knows what it's doing	4	44	8	22
The underground aquifer is a major part of the flooding problem. An outlet may not make any difference.	3	33	6	17
Don't feel that there is a good solution	2	22	4	11
Need to develop a comprehensive statewide water management plan	0	0	5	14
Move the town of Devils Lake	0	0	3	8
Other assessment*	6	67	23	64

* See Appendix C

Respondents' Views of Upper Basin Drainage

During the course of the interviews, respondents often mentioned opinions and ideas on upper basin drainage and the impacts to them or on others in the Devils Lake Region. If not stated specifically, respondents were often asked to clarify their views as to whether they felt that upper basin drainage was a significant part of the flooding in Devils Lake or not. When responses were compared between Tribal and non-Tribal respondents, the actual number of

responses from Tribal members was not high enough to allow for meaningful comparisons. For this reason, comparisons are made only between geographic communities in the Devils Lake Region (Table 6).

Comparison of Various Communities in the Devils Lake Region

Views on upper basin drainage varied considerably between various communities within the Devils Lake Region (Table 6). These views are included in this analysis for two reasons. First, a large number of respondents brought up this topic and wanted to give their views on various aspects of upper basin drainage as part of the overall water management plan in the Devils Lake Region. Secondly, for a number of respondents, their views on upper basin drainage were strongly related to how they felt about the proposed west-end outlet and other outlet options.

Seventy-one percent of respondents from communities north and northwest of Devils Lake felt that upper basin drainage is needed so that farmers in that area won't go out of business, or felt that upper basin drainage indirectly helps businesses in Devils Lake, since upper basin farmers are able to purchase products and services from Devils Lake merchants.

A majority of respondents from these communities (71%) also expressed the view that upper basin drainage is only a small part of the flooding problem in Devils Lake. In comparison, this view was expressed by much smaller percentages of respondents in other communities of the Devils Lake Region: 33% of respondents in communities west and southwest, 11% of respondents from Spirit Lake Nation, 14% of respondents in the Stump Lake area and 13% of those in Red River communities. No respondents from downstream communities expressed this view.

Some respondents felt that it would be a good idea to minimize or more closely regulate upper basin drainage. This idea was mentioned by 29% of those in the north and northwest, 33% of those west and southwest, 11% of those from Spirit Lake Nation and 25% of those from Red River communities. Some respondents held a stronger view, stating that upper basin drainage should be stopped completely, maximizing upper basin storage. This view was held by 100% of respondents from downstream communities. Smaller percentages of respondents from other communities also expressed this view: 14% of those north and northwest of Devils Lake, 33% of those west and southwest, 11% of those from Spirit Lake Nation, 29% of those in the Stump Lake area, and 13% of those in Red River communities.

A related preference to expand the number of acres in the Conservation Reserve Program and restore wetlands was held by 38% of those from downstream communities, 29% of those north or northwest of the lake, 13% of those from Red River communities, and 11% of respondents from Spirit Lake Nation.

Twenty-nine percent of respondents in north and northwest communities mentioned that upper basin drainage was advantageous to them. Respondents in other communities of the lake region did not hold this view. In contrast, another 29% from these same communities (north and northwest) felt that upper basin drainage was disadvantageous to them, as well as a small percentage of respondents from Spirit Lake Nation (11%) and from downstream communities (13%). A number of respondents had other comments or views on upper basin drainage. These comments are listed in Appendix D.

Table 6. Respondents' Views of Upper Basin Drainage by Community

Description	North-Northwest N = 7		West-Southwest N = 6		Spirit lake Nation N = 9	
	#	%	#	%	#	%
Upper basin drainage is needed so that those farmers won't go out of business; indirectly helps businesses DL	5	71	0	0	0	0
Upper basin drainage only a small part of the problem	5	71	2	33	1	11
Minimize or more closely regulate upper basin drainage	2	29	2	33	1	11
Stop upper basin drainage completely/maximize upper basin storage	1	14	0	0	2	22
Expand the number of acres in the CRP program/restore wetlands	2	29	0	0	1	11
Upper basin drainage is advantageous to me	2	29	0	0	0	0
Upper basin drainage is disadvantageous to me	2	29	0	0	1	11
Other views on upper basin drainage	3	43	1	17	3	33

Description	Stump Lake Area N = 7		Downstream Communities N = 8		Red River Communities N = 8	
	#	%	#	%	#	%
Upper basin drainage is needed so that those farmers won't go out of business; indirectly helps businesses DL	0	0	0	0	0	0
Upper basin drainage only a small part of the problem	1	14	0	0	3	38
Minimize or more closely regulate upper basin drainage	0	0	0	0	2	25
Stop upper basin drainage completely/maximize upper basin storage	2	29	8	100	1	13
Expand the number of acres in the CRP program/restore wetlands	0	0	3	38	1	13
Upper basin drainage is advantageous to me	0	0	0	0	0	0
Upper basin drainage is disadvantageous to me	0	0	1	13	0	0
Other views on upper basin drainage*	2	29	6	75	5	62

* See Appendix D. (Note: numbers and percentages reflect actual number of respondents with additional comments. Appendices may reflect more than one comment made by individual respondents.)

Disproportionate Impacts: Impacts of the Proposed Emergency Outlet (and other outlet options)

Interview questions for this aspect of the study included asking respondents about the impacts to themselves and others of the proposed emergency outlet. Respondents were also asked about which communities or groups they felt would be either positively or negatively impacted by the proposed outlet project. Some respondents also offered opinions on impacts of other possible outlet projects, such as an east-end outlet, or the current proposal for constructing a channel from Devils Lake to Stump Lake.

Groups or Communities Perceived as Benefiting by the Proposed Emergency Outlet

During the course of the interviews, respondents were asked about the groups or communities they thought would benefit by the proposed Emergency Outlet. Responses are compared between Tribal and non-Tribal respondents, and by communities in the Devils Lake Region (Tables 7 and 8).

Comparison of Tribal and Non-Tribal Respondents

Data from this study indicate that non-Tribal respondents feel more strongly than Tribal respondents that the *City of Devils Lake* and *farmers in the surrounding area* would benefit (Table 7). Forty-two percent of non-Tribal respondents as compared to 22% of Tribal respondents felt that the *City of Devils Lake* would benefit from the proposed west-end outlet. Thirty-three percent of non-Tribal respondents as compared to 11% of Tribal respondents felt that *farmers in the surrounding area* would benefit. In contrast, a larger percentage of Tribal respondents (33%) than non-Tribal respondents (14%) felt that *politicians and state officials* would benefit if the west-end outlet is built. Only 11% of Tribal respondents and 3% of non-Tribal respondents reported that they felt that *Spirit Lake Nation* would benefit from the proposed outlet.

Non-Tribal respondents mentioned a number of other beneficiaries, including *landowners whose property is not already underwater*, *residents of Nelson County*, the *City of Fargo* (due to their need for an increased water supply), and the opinion that *everyone in the area* would benefit. Non-Tribal respondents also mentioned *people in urban areas* (because of their numbers); *merchants in Devils Lake* (who would then push for an inlet); the *State of North Dakota* (as a whole); *taxpayers* (since they've had to pay for continual repair of roads and dikes); all of *Ramsey County*; *those who are draining in the upper basin*; *downstream communities* (since they would have controlled flow, which they don't have now); and also voiced the sentiment that *nobody* would really benefit. Other beneficiaries mentioned by Tribal respondents included *non-Tribal groups in Devils Lake pushing for the outlet*, since the appropriations for the outlet might go directly to them.

Table 7. Groups or Communities Perceived as Benefiting by the Proposed Emergency Outlet by Tribal and Non-Tribal Respondents

Description	Tribal Respondents N = 9		Non-Tribal Resp. N = 36	
	#	%	#	%
The City of Devils Lake	2	22	15	42
Farmers and ranchers in the area surrounding Devils Lake	1	11	12	33
Politicians and state officials	3	33	5	14
Army Corps of Engineers and other contractors	3	33	4	11
Spirit Lake Nation	1	11	1	3
Others perceived as benefiting from an outlet	3	33	17	47

Comparison of Various Communities in the Devils Lake Region

Table 8 illustrates perceived benefits of an outlet by respondents in different geographic proximity to Devils Lake. Fifty-seven percent of those in the Stump Lake area felt that the *City of Devils Lake* would benefit, followed by the same percentage of respondents (57%) in north and northwest communities, 50% of Red River communities, 25% of those downstream communities, 22% of respondents from Spirit Lake Nation, and 17% of those in communities west and southwest of Devils Lake. Seventy-one percent of those in communities north and northwest of Devils Lake felt that *farmers and ranchers in the area surrounding Devils Lake* would benefit, as well as 50% of those in Red River communities, 25% of respondents from downstream communities, 14% of those in the Stump Lake area, and 11% of those from Spirit Lake Nation.

Thirty-three percent of respondents from communities west and southwest of Devils Lake and 33% of respondents from Spirit Lake Nation felt that the *Army Corps and/or their contractors* would benefit. This view was shared by 25% of those from downstream communities. Thirty-eight percent of those from downstream communities also held the view that *politicians and state officials* would benefit, followed by 33% of those from Spirit Lake Nation. Almost half of the respondents in the Stump Lake area (43%) felt that *Nelson County residents* would benefit from the proposed west-end outlet.

Table 8. Groups or Communities Perceived as Benefiting by the Proposed Emergency Outlet by Community

Description	North-Northwest N = 7		West-Southwest N = 6		Spirit lake Nation N = 9	
	#	%	#	%	#	%
The City of Devils Lake	4	57	1	17	2	22
Farmers and ranchers in the Devils Lake area	5	71	0	0	1	11
Politicians and state officials	0	0	1	17	3	33
Army Corps of Engineers and other contractors	0	0	2	33	3	33
Spirit Lake Nation	0	0	0	0	2	22
Nelson County	0	0	0	0	0	0
Others perceived as benefiting from an outlet	4	57	2	33	1	11

Description	Stump Lake Area N = 7		Downstream Communities N = 8		Red River Communities N = 8	
	#	%	#	%	#	%
The City of Devils Lake	4	57	2	25	4	50
Farmers and ranchers in the Devils Lake area	1	14	2	25	4	50
Politicians and state officials	0	0	3	38	1	13
Army Corps of Engineers and other contractors	0	0	2	25	0	0
Spirit Lake Nation	0	0	0	0	0	0
Nelson County	3	43	0	0	0	0
Others perceived as benefiting from an outlet	4	57	5	62	4	50

Groups or Communities Perceived as Disadvantaged by the Proposed Outlet

Similar to interview questions about perceived groups who would benefit, respondents were also asked to provide their views about which groups or communities might be adversely impacted if the proposed emergency outlet were built. Comparison of Tribal and non-Tribal responses are illustrated in Table 9. Responses in this area were not numerous enough to compare by community.

Comparison of Tribal and Non-Tribal Respondents

A large number of both Tribal and non-Tribal respondents felt that the proposed outlet would adversely impact *downstream communities* (56% and 50%, respectively). Forty-four percent of Tribal respondents held the view that *Spirit Lake Nation* would be adversely affected by the outlet, while only 14% of non-Tribal respondents held this view. Similarly, a greater percentage of Tribal respondents (22%) than non-Tribal respondents (8%) felt that those in the direct path of the pipeline would be at a disadvantage.

Seventeen percent of Non-Tribal respondents felt that communities near Stump Lake would be at a disadvantage. However, a majority of these respondents were referring to potential negative impacts if the outlet were taken through the east end of Devils Lake. Eleven percent of non-Tribal respondents felt that taxpayers would be at a disadvantage. These responses varied between concern for American taxpayers (due to the large amount of federal funding that would be needed for the project), taxpayers in the State of North Dakota, and local taxpayers that may not experience any direct benefit from the outlet. Seventeen percent of non-Tribal respondents felt that no one would really be adversely affected by the proposed outlet, while none of the Tribal respondents expressed this view.

Non-Tribal respondents also mentioned the following groups as potentially disadvantaged by the proposed outlet: farmers outside of Fargo (due to dikes that would have to be built around the city); and people who would be displaced by the outlet (those on easement lands). Another respondent felt that downstream communities would be negatively impacted only if a water treatment plant does not go in. Some Tribal respondents felt that if the outlet were built, they would have to relocate more people from Spirit Lake Nation than they already have.

Table 9. Groups or Communities Perceived as Being Disadvantaged by the Proposed Emergency Outlet by Tribal and Non-Tribal Respondents

Description	Tribal Respondents N = 9		Non-Tribal Resp. N = 36	
	#	%	#	%
Downstream communities	5	56	18	50
Spirit Lake Nation	4	44	5	14
Those in the direct path of the pipeline	2	22	3	8
Communities near Stump Lake	0	0	6	17
No one would really be adversely affected	0	0	6	17
Taxpayers (American taxpayers, state, or local)	0	0	4	11
Others perceived as disadvantaged by an outlet	1	11	3	8

Respondents' Perception of Impacts to Themselves of the Proposed Outlet

Table 10 provides a comparison between communities of the perceived impacts to respondents themselves of the proposed outlet. Responses received from Tribal respondents were not numerous enough to provide for meaningful comparisons between Tribal and non-Tribal respondents.

Comparison of Various Communities in the Devils Lake Region

Data from this study indicate that few respondents in communities north and northwest of Devils Lake, as well as in the Stump Lake area, mentioned that the proposed outlet would impact them in a specific way. Almost half of the respondents north and northwest communities (43%) expressed the views that *unless* an outlet goes in, their home would be flooded or their farm or ranch would be flooded. The same percentage of respondents in the Stump Lake area expressed these views. Half of those in communities west and southwest of Devils Lake, one respondent on Spirit Lake Nation, and one downstream respondent felt that their property would be damaged or affected by construction of an outlet, and receive no compensation. Twenty-five percent of downstream respondents also felt that an outlet would directly affect their income or livelihood, would flood their home, farm, or ranch, would flood roads they use, and would pose problems raising cattle.

A majority of respondents in the Stump Lake area, as well as a number of respondents from other communities had additional comments on perceived impacts to themselves from the proposed outlet. These comments are shown in Appendix E.

**Table 10. Respondents' Perception of Impacts to Themselves
of the Proposed Emergency Outlet by Community**

Description	North-Northwest N = 7		West-Southwest N = 6		Spirit lake Nation N = 9	
	#	%	#	%	#	%
Would directly affect my income or livelihood	0	0	1	17	0	0
My property would be damaged/affected by construction of an outlet with no compensation	0	0	3	50	1	11
My home, farm or ranch would flood if an outlet is built	0	0	0	0	0	0
Roads I use would flood if an outlet is built	0	0	1	17	0	0
There would be problems raising my cattle (access to pasture, water quality, etc.)	0	0	0	0	0	0
UNLESS an outlet goes in, my home will be flooded	3	43	0	0	1	11
UNLESS an outlet goes in, my farm or ranch will be flooded	3	43	0	0	0	0
There would be no direct impacts to me	1	14	1	17	2	22
Other impacts to me	1	14	3	50	2	22

Description	Stump Lake Area N = 7		Downstream Communities N = 8		Red River Communities N = 8	
	#	%	#	%	#	%
Would directly affect my income or livelihood	0	0	2	25	0	0
My property would be damaged/affected by construction of an outlet with no compensation	0	0	1	13	0	0
My home, farm, or ranch would flood if an outlet is built	0	0	2	25	2	25
Roads I use would flood if an outlet is built	0	0	2	25	0	0
There would be problems raising my cattle (access to pasture, water quality, etc.)	0	0	2	25	0	0
UNLESS an outlet goes in, my home will be flooded	3	43	0	0	0	0
UNLESS an outlet goes in, my farm or ranch will be flooded	3	43	0	0	0	0
There would be no direct impacts to me	0	0	1	13	1	13
Other impacts to me	6	86	3	37	1	13

Respondents' Perception of Impacts to Others of the Proposed Outlet

Table 11 illustrates the comparison of Tribal and non-Tribal respondents' perceptions of the impacts of the proposed outlet on others. Since the original interview questions were open-ended and non-structured in this area, responses varied widely, but echoed some common themes. These variables demonstrate respondents' awareness of how the proposed outlet might affect other groups and communities. In general, respondents were candid and open in reporting their views in this area, even when perceived impacts to others were potentially in conflict with potential impacts they perceived to themselves. Responses in this area were not numerous enough to compare by various communities.

Comparison of Tribal and Non-Tribal Respondents

Forty-two percent of non-Tribal respondents and 22% of Tribal respondents felt that Canada or other states would oppose the outlet, due to the potential impacts on water quality. Forty-four percent of Tribal respondents, as compared to 36% of non-Tribal respondents, held the view that downstream communities would be flooded in times of heavy rain if the outlet were built. The data also indicate that an identical percentage (33%) of both Tribal and non-Tribal respondents felt that Spirit Lake Nation had registered opposition to an outlet. Fifty-six percent of Tribal respondents felt that there was some degree of disagreement within Spirit Lake Nation with regard to the proposed outlet, while 11% of non-Tribal respondents held this view.

Additional perceptions of impacts to others mentioned by non-Tribal respondents included questioning the impacts to Canada if overflow to the Sheyenne River occurs naturally; the opinion that Canadians will be adversely impacted anyway if the water flows uncontrolled to the Red River; that we could work with Canada if we have the right equipment and appropriate funding; that water quality might be bad for those downstream; the concern that Sheyenne River communities would be flooded all year long; the view that there is less deeded land on the east side of the lake (near Stump Lake) thus, an east-end outlet would affect fewer property owners; that an outlet would not help farmers whose lands are already under water (since it would be costly and their lands wouldn't come back for many years); a question about the impacts to Spirit Lake Nation if an outlet goes through, viewing it as a quality of life issue involving costs that can't necessarily be measured in dollars; and the sentiment that Spirit Lake Nation needs to have more say, that their views have not been heard enough, that there is wisdom in their philosophy, and that they should be heard.

Other perceptions of impacts to others mentioned by Tribal respondents included the view that there is consensus within Spirit Lake Nation with regard to opposing an outlet; that the proposed pipeline would go through sacred ground on the Fort Totten Reservation lands; that farmers downstream would be flooded; the sense that most Tribal people who would have been affected have already moved or been relocated; the opinion that the outlet would not affect them directly, but would affect their neighbors or community; and the view that some Tribal members (both older and younger) are more “western” in their beliefs than others.

**Table 11. Respondents' Perception of Impacts to Others of the Proposed Emergency Outlet
by Tribal and Non-Tribal Respondents**

Description	Tribal Respondents		Non-Tribal Resp. N = 36	
	#	%	#	%
Canada/other states will be opposed, due to impacts on water	2	22	15	42
Downstream areas would be flooded in times of heavy rain	4	44	13	36
Spirit Lake Nation has registered opposition to an outlet	3	33	12	33
I can empathize with others who are currently being flooded	0	0	8	22
Would affect those in other areas of the lake region	0	0	4	11
Feels that there is some disagreement within Spirit Lake Nation re: an outlet	5	56	4	11
I can empathize w/others who will be neg. impacted if an outlet goes in	1	11	3	8
Road access would be a problem for others (i.e., cattle, vehicles)	0	0	3	8
Others would have problems raising their cattle (water qual, access to	0	0	3	8
People in Devils Lake would have to pay too much (local taxes, etc.)	0	0	2	6

Other impacts to others	5	56	12	33
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Perceived Environmental Impacts

During the course of the interviews respondents often mentioned impacts to the environment from the proposed emergency outlet. Environmental impacts mentioned included impacts to wildlife, trees and plants, water quality, bank erosion, sedimentation, and fisheries. Tables 12 and 13 show some differences between Tribal and non-Tribal respondents, and between various communities in the Devils Lake Region. Additional comments are listed in Appendix F.

Comparison of Tribal and Non-Tribal Respondents

A slightly higher percentage of non-Tribal respondents (47%) as compared to Tribal respondents (33%) felt that the proposed outlet would adversely affect water quality (Table 12). Similarly, 39% of non-Tribal respondents felt that bank erosion would be a serious problem, as compared to 33% of Tribal respondents. A small percentage of non-Tribal respondents mentioned loss of wildlife habitat (8%), and negative impacts to fisheries (8%). Twenty-two percent of Tribal respondents, as compared to only 6% of non-Tribal respondents, however, felt that agricultural runoff from pesticides or fertilizers would be a negative environmental impact from the proposed Emergency Outlet.

Table 12. Respondents' Perceptions of Environmental Impacts of the Proposed Emergency Outlet by Tribal and Non-Tribal Respondents

Description	Tribal Respondents N = 9		Non-Tribal Resp. N = 36	
	#	%	#	%
Water quality would be adversely impacted	3	33	17	47
Bank erosion will be a serious problem	3	33	14	39
Loss of wildlife habitat will result	0	0	3	8
Loss of trees or plants will result	1	11	4	11
Silt or sedimentation problems will result	1	11	3	8
Fisheries will be negatively impacted, due to lake levels or water quality	0	0	3	8
Agr. runoff (pesticides, chemicals, etc. would impact water qual. downstream)	2	22	2	6
Other environmental impacts	5	56	14	39

Comparison of Various Communities in the Devils Lake Region

Table 13 illustrates differences in perceived environmental impacts between various communities in the Devils Lake Region. Respondents in several communities felt that water quality would be adversely impacted. One-hundred percent of respondents from downstream communities held this view, followed by 50% of those in Red River communities, 50% of those west and southwest, and 33% of respondents from Spirit Lake Nation. Similarly, 88% of downstream respondents felt that bank erosion would be a serious problem, along with 50% of respondents from Red River communities, and 33% of respondents from both Spirit Lake Nation and west-southwest communities. Smaller numbers of respondents mentioned loss of wildlife or habitat, loss of trees or plants, and impacts to fisheries.

Table 13. Respondents' Perceptions of Environmental Impacts of the Proposed Emergency Outlet by Community

Description	North-Northwest N = 7		West-Southwest N = 6		Spirit lake Nation N = 9	
	#	%	#	%	#	%
Water quality would be adversely impacted	1	14	3	50	3	33
Bank erosion will be a serious problem	0	0	2	33	3	33
Loss of wildlife habitat will result	0	0	1	17	0	0
Loss of trees or plants will result	0	0	0	0	1	11
Silt or sedimentation problems will result	1	14	1	17	1	11
Agricultural runoff (pesticides, chemicals, etc. would impact water downstream)	0	0	1	17	2	22
Other environmental impacts	3	43	4	67	5	56

Description	Stump Lake Area N = 7		Downstream Communities N = 8		Red River Communities N = 8	
	#	%	#	%	#	%
Water quality would be adversely impacted	1	14	8	100	4	50
Bank erosion will be a serious problem	1	14	7	88	4	50
Loss of wildlife habitat will result	1	14	1	13	0	0
Loss of trees or plants will result	0	0	2	25	2	25
Silt or sedimentation problems will result	0	0	1	13	0	0
Agricultural runoff (pesticides, chemicals, etc. would impact water downstream)	0	0	1	13	0	0
Other environmental impacts	2	29	4	50	4	50

Stakeholder Involvement: Perceptions of the Army Corps of Engineers Scoping Process

Additional interview questions focused on respondents' awareness of the scoping process for the proposed emergency outlet conducted by the Army Corps of Engineers, as well as their assessment of community involvement in the process and the perception of their own views being heard. Again, questions were open-ended and allowed for a wide variety of individual interpretations and perceptions. It is important to include data about the awareness and participation of respondents of the scoping process, since few participants in this study actually felt that their views have been heard or acted on. These findings are discussed later in this section.

Respondents' Awareness of or Involvement in the Scoping Process

As part of the focused interviews, participants were asked about their awareness of the scoping process conducted by the Army Corps. This process involved a series of community meetings designed to gather input and answer questions about the proposed outlet project. Since this study utilized a purposive sample of individuals known to have an interest in the proposed outlet, not surprisingly, the data show a fairly high level of awareness among respondents of the

Army Corps scoping process (Tables 14 and 15). However, respondents also mentioned additional activities regarding their involvement in the scoping process.

Comparison of Tribal and Non-Tribal Respondents

Both Tribal and non-Tribal respondents had a high percentage of awareness of the Army Corps scoping process (78% and 86%, respectively). In addition, 75% of Tribal and 75% of non-Tribal respondents have attended the scoping meetings. A larger percentage of non-Tribal (56%) than Tribal respondents (33%) made their views known verbally or in writing at the scoping meetings. In addition, 25% of non-Tribal respondents have taken other opportunities to make their views known, as compared to 11% of Tribal respondents. Eight percent of non-Tribal respondents have taken legal action to keep the proposed outlet from being built, while another 3% have taken legal action to facilitate the building of an outlet. A small percentage (11%) of both Tribal and non-Tribal respondents reported that they were tired of attending meetings on the outlet project, due to the feeling that “nothing ever happens.”

**Table 14. Respondents' Awareness of/Involvement in the Army Corps Scoping Process
by Tribal and Non-Tribal Respondents**

Description	Tribal Respondents N = 9		Non-Tribal Resp. N = 36	
	#	%	#	%
Aware of the scoping process	7	78	31	86
Have attended meetings	7	78	27	75
Have made my views known verbally, or in writing at meetings	3	33	20	56
Took other opportunity to make my views known (editorials, group involvement, etc.)	1	11	9	25
Took legal action to facilitate an outlet being built	0	0	1	3
Took legal action to keep the outlet from being built	0	0	3	8
Got tired of going to meetings; nothing ever happens	1	11	4	11
Other awareness/involvement	4	44	6	17

Comparison of Various Communities in the Devils Lake Region

As might be expected with a purposive sample, awareness of the scoping process was relatively high among most communities in the Devils Lake Region. One-hundred percent of respondents in communities north and northwest, and in downstream communities were aware of the scoping process. In addition, 86% of respondents in the Stump Lake area, 78% of respondents from Spirit Lake Nation, 75% of those in Red River communities, and 67% of respondents in communities west and southwest were aware of this process. Similarly, meeting attendance was high in most areas: north and northwest 86%, downstream communities 88%, Spirit Lake Nation 78%, Stump Lake area 71%, west and southwest 67% and Red River communities 63%.

Respondents who made their views known at meetings (either verbally or in writing) varied between communities in the Devils Lake Region. Eighty-six percent of those north and northwest of the lake reported that they made their views known, as well as 75% of those downstream, and 50% of those in Red River communities. Percentages were lower in other areas of the lake region, with 33% of those in both west-southwest communities and from Spirit Lake Nation reporting that they had made their views known at scoping meetings, and 29% of respondents in the Stump Lake area. The data show that 50% of respondents from communities west and southwest of the lake, as well as 38% of downstream respondents took other opportunities to make their views known, such as editorials in local papers or group involvement.

In terms of those taking legal action, 50% of respondents west of the lake (in the path of the proposed outlet) took action to keep the outlet from being built. Fourteen percent of respondents in communities north and northwest took legal action to facilitate the building of an outlet.

Respondents also made a number of additional comments on involvement with the scoping process. Comments from respondents north and northwest of the lake included the need to become involved in litigation in order to force the state and federal governments to act on the outlet. Respondents in the Stump Lake area mentioned working at the county level on the proposed outlet. Respondents from downstream communities reported lobbying in Washington against the proposed outlet and testifying before the Senate Public Works Committee, to voice their opposition. Respondents from communities west and southwest of the lake mentioned that the Army Corps tried to convince many residents in their area to sign off on easements for access to conduct surveys and cultural investigations. (According to some of these respondents, the Corps tried to convince property owners in the area that they would proceed with the outlet plans regardless.) Another respondent from this area mentioned serving as technical advisor for a citizen's group opposing the outlet.

Respondents from Spirit Lake Nation mentioned being involved in a survey of Spirit Lake Nation members on Devils Lake water management options; passing a Tribal resolution in 1998 opposing the outlet; testifying at a meeting of the National Environmental Justice Advisory Council (NEJAC); meeting with other citizens groups opposing the outlet; forming the Spirit Lake Basin Alliance in response to the Army Corps' proposed actions; being asked to sit on the Governor's Committee for Water Management, using the opportunity to emphasize the importance of cultural preservation; and writing a proposal in favor of the proposed outlet to present to the Tribal Council.

Table 15. Respondents' Awareness of/Involvement in the Army Corps Scoping Process by Community

Description	North-Northwest N = 7		West-Southwest N = 6		Spirit lake Nation N = 9	
	#	%	#	%	#	%
Aware of the scoping process	7	100	4	67	7	78
Have attended meetings	6	86	4	67	7	78
Have made my views known verbally, or in writing at meetings	6	86	2	33	3	33
Took other opportunity to make my views known (editorials, group involvement, etc.)	1	14	3	50	1	11

Took legal action to facilitate an outlet being built	1	14	0	0	0	0
Took legal action to keep the outlet from being built	0	0	3	50	0	0
Got tired of going to meetings; nothing ever happens	2	29	1	17	1	11
Other awareness/involvement	2	29	3	50	4	44

- continued

**Table 15. Respondents' Awareness of/Involvement
in the Army Corps Scoping Process by Community (continued)**

Description	Stump Lake Area N = 7		Downstream Communities N = 8		Red River Communities N = 8	
	#	%	#	%	#	%
Aware of the scoping process	6	86	8	100	6	75
Have attended meetings	5	71	7	88	5	63
Have made my views known verbally, or in writing at meetings	2	29	6	75	4	50
Took other opportunity to make my views known (editorials, group involvement, etc.)	1	14	3	38	1	13
Took legal action to facilitate an outlet being built	0	0	0	0	0	0
Took legal action to keep the outlet from being built	0	0	0	0	0	0
Got tired of going to meetings; nothing ever happens	1	14	0	0	0	0
Other awareness/involvement	0	0	2	25	0	0

Respondents' Perception of Their Views Being Heard

Respondents were asked whether they felt their views had been heard with regard to the proposed emergency outlet. Responses in this area were examined between Tribal and non-Tribal respondents and various communities within the Devils Lake Region (Tables 16-17).

Comparison of Tribal and Non-Tribal Respondents

There were fewer differences in this area between Tribal and non-Tribal respondents (Table 16). The largest percentage reported for both groups was the perception that their views had not been heard. This view was expressed by 33% of Tribal and 39% of non-Tribal respondents. In contrast, the data show that one Tribal respondent and one non-Tribal respondent felt that their views had been heard, and acted on to some degree. Thirty-three percent of Tribal respondents, as compared to 36% of non-Tribal respondents felt that their views had been heard, but not necessarily acted on. Nineteen percent of non-Tribal respondents felt that the efforts of their group or community had made a difference in the scoping process. This view was not expressed by Tribal respondents.

Other perceptions mentioned by Tribal respondents included the opinion that Tribal Council members have not been pushing to make their views known; that some non-Tribal people in Devils Lake don't want an outlet either, but don't feel that they can speak up; the view that people downstream have tried to voice their concerns, but the Army Corps has not addressed

them at all; and the sentiment that people from Spirit Lake Nation never really got an opportunity to make their views known.

Other perceptions mentioned by non-Tribal respondents included the following views: that the Army Corps' mind was made up when they came in, and were therefore not open to the public's ideas; the view that those in Washington will decide, or have their minds made up already; that the Army Corps has had more "unknowns" than "knowns" with regard to the outlet project; that the Army Corps didn't change the plan for the outlet as a result of the meeting and input from the residents; that the Army Corps had their "list of concerns" for people to rank, but didn't give people a chance to add items of their own; the feeling that people who have lost their farms, homes, or land have thrown up their hands and feel "hung out to dry," resulting in lawsuits; and that the Army Corps has overlooked the innovative ideas of individuals, not providing feedback on why specific suggestions for flood management would not work.

Other perceptions mentioned by non-Tribal respondents included the view that this is a political issue surrounded by all kinds of "political correctness"; an overall mistrust of the Army Corps' "bureaucratic" decisions; the frustration that every time the Army Corps comes up with a plan they've changed it; the feeling of one respondent that his views have been heard locally, but not by the Army Corps; that the Army Corps' decisions affect peoples' livelihoods, making changes to the earth, with serious impacts on nature; that people don't go to meetings because they don't feel heard. Some positive views toward the Army Corps' (and other officials') efforts include the opinion that the Army Corps is trying to make the project feasible and deal with water quality issues downstream; that County commissioners do a good job of representing the county residents interests; and that the professionals know more about how to get the project done than the local people.

**Table 16. Respondents' Perception of Their Views on the Proposed Outlet Being Heard
by Tribal and Non-Tribal Respondents**

Description	Tribal Respondents N = 9		Non-Tribal Resp. N = 36	
	#	%	#	%
Feel that my views were largely or fully heard and acted on to some degree	1	11	1	3
Feel that my views have been heard, but not necessarily acted on	3	33	13	36
Do not feel that my views have been heard	3	33	14	39
Efforts of my group/community have made some difference	0	0	7	19
Other perception	3	33	15	42

Comparison of Various Communities in the Devils Lake Region

Differences between respondents in various areas of the Devils Lake Region are shown in Table 17. As mentioned in the previous discussion, the perception that group or community efforts have made some difference was mentioned most often by respondents in communities west-southwest of the lake and those in downstream communities (67% and 38%, respectively).

A number of respondents in all groups felt that their views may have been heard, but not necessarily acted on. Half of the respondents from Red River communities expressed this view, as well as 38% of those from downstream communities. Although the differences between geographic areas are not substantial, it is important to note that *in all areas of the lake region*, a number of respondents reported that they do not feel their views have been heard. This sentiment was voiced by 50% of respondents from downstream communities, 43% of those in the Stump Lake area, 43% of those in communities north and northwest of the lake, 33% of respondents from Spirit Lake Nation, 33% of those west and southwest of the lake, and 25% of respondents from Red River communities.

The data indicate that although some communities have a higher percentage of respondents expressing this view, this sentiment does appear to be confined to either low-income communities or Tribal respondents. Similarly, few respondents in any of the communities reported feeling that their views have been heard and acted on to some degree. These findings suggest the need for change in the format and approach for the traditional scoping process, and/or may illustrate the difficulty of one solution being perceived as workable for the entire Devils Lake Region.

Table 17. Respondents' Perception of Their Views on the Proposed Outlet Being Heard by Community

Description	North-Northwest N = 7		West-Southwest N = 6		Spirit lake Nation N = 9	
	#	%	#	%	#	%
Feel that my views were largely or fully heard and acted on to some degree	1	14	0	0	1	11
Feel that my views have been heard, but not necessarily acted on	2	29	2	33	3	33
Do not feel that my views have been heard	3	43	2	33	3	33
Efforts of my group or comm. have made some difference	0	0	4	67	0	0
Other perception	4	57	1	17	3	33

Description	Stump Lake Area N = 7		Downstream Communities N = 8		Red River Communities N = 8	
	#	%	#	%	#	%
Feel that my views were largely or fully heard and acted on to some degree	0	0	0	0	0	0
Feel that my views have been heard, but not necessarily acted on	2	29	3	38	4	50
Do not feel that my views have been heard	3	43	4	50	2	25
Efforts of my group or comm. have made some difference	0	0	3	38	0	0
Other perception	3	43	4	50	3	38

Respondents' Perceptions of Opportunity for Community Involvement in the Scoping Process

NEPA encourages the opportunity for input and inclusion in the decision-making process by the public, and communities affected by a proposed federal action. In addition, regulations set forth by the Council on Environmental Quality require agencies whose actions would potentially affect federally recognized Tribes to involve those tribes in the decision-making process. Respondents in this study were asked about their views on such opportunities and about their assessment of the Army Corps scoping process for the proposed emergency outlet. With regard to the Army Corps' efforts in this area, opinions ranged from fairly supportive to relatively critical (Tables 18 and 19).

Comparison of Tribal and Non-Tribal Respondents

Table 18 compares responses about opportunities for public and community involvement between Tribal and non-Tribal respondents. In terms of positive responses, 22% of Tribal and 33% of non-Tribal respondents felt that the Army Corps did an adequate job of providing for public or community input on the proposed outlet project. Eleven percent of non-Tribal respondents, but none of the Tribal respondents, held the view that the Army Corps is given direction by the politicians and is not really able to make direct decisions as an agency regarding whether or not a proposed project goes through. A slightly higher percentage of Tribal (22%) than non-Tribal respondents (19%) felt that the Army Corps did not provide for enough input from the public or community.

A related sentiment was voiced by 22% of non-Tribal respondents (but only by 11% of Tribal respondents) that the Army Corps does not care about communities that are small in number. These respondents reported feeling that for this reason, they do not feel that they have much of a voice in the decision-making process. Forty-four percent of Tribal and 19% of non-Tribal respondents felt that the Army Corps should have held more meetings with members of the public on the proposed outlet project, or held meetings at more convenient times and places so that people could attend. Twenty-two percent of Tribal respondents, as compared to 6% of non-Tribal respondents, felt that the Army Corps should have used more appropriate channels to provide information on the proposed project (such as working through the Tribal Council on Spirit Lake Nation or through town boards in various communities). Conversely, 25% of non-Tribal respondents (but none of the Tribal respondents) felt that the Army Corps has held enough meetings, or done enough studies. Their view was that it is now time to take action and get something done.

The largest percentage of non-Tribal respondents (39%), as well as 33% of Tribal respondents, felt that the Army Corps should have been more open to real input from the public on the proposed outlet project instead of "promoting their own agenda." Similarly, some non-Tribal respondents (17%) felt that the Army Corps had their minds made up going in to the scoping process, not really wanting any real input from the public. A majority of Tribal respondents (89%) voiced other concerns or ideas in this area, along with 53% of non-Tribal respondents. These comments are listed in Appendix G.

Table 18. Respondents' Perceptions of Opportunity for Community Involvement in the Scoping Process by Tribal and Non-Tribal Respondents

Description	Tribal Resp. N = 9		Non-Tribal Resp.	
	#	%	#	%
Army Corps did an adequate job of providing for public/community input	2	22	12	33
Army Corps really can't do anything -- just told what to do by the politicians	0	0	4	11
Don't feel that the Army Corps provided for enough public/community input	2	22	7	19
Army Corps/State doesn't care about us, since we're too small in numbers/don't feel we have much voice	1	11	8	22
Army Corps should have held more meetings or held meetings at more convenient times and places so people could attend	4	44	7	19
Army Corps should have been more open to real input from the public	3	33	14	39
Army Corps should have used more appropriate channels to provide info. (tribal council, town board, etc.)	2	22	2	6
Army Corps has held enough meetings/done enough studies -- they need to take action now/do something	0	0	9	25
Army Corps has their minds made up - don't really want input from the public	0	0	6	17
Other concerns, comments, views on scoping process	8	89	19	53

Note: numbers and percentages reflect actual number of respondents with additional comments. Appendices may reflect more than one comment made by individual respondents.

Comparison of Various Communities in the Devils Lake Region

Table 19 illustrates comparisons between various geographic areas of the Devils Lake Region. Sixty-three percent of those in Red River communities felt that the Army Corps did an adequate job providing for public or community input. This sentiment was expressed by 57% of those in the Stump Lake area, 29% of those in communities north and northwest of Devils Lake, 22% of those from Spirit Lake Nation, only 13% of those from downstream communities, and by none of the respondents in communities west and southwest of Devils Lake, whose property would be directly impacted by the currently proposed outlet. Another significant finding was that 71% of those in the Stump Lake area felt that the Army Corps did not care about their views, since they are small in numbers, and that they did not have much voice in the decision-making process. This sentiment was expressed by 25% of those from Red River communities, 17% of respondents from communities west and southwest of Devils Lake, and by 11% of respondents from Spirit Lake Nation.

Forty-four percent of respondents from Spirit Lake Nation, and 43% of those in the Stump Lake area felt that the Army Corps should have held more meetings to gather public input on the proposed outlet project (or held meetings at more convenient times). Some members of Spirit Lake Nation mentioned that the Army Corps should also have been willing to communicate with the Tribal community as a whole, not limiting their communications to the Tribal Council.

The data also indicate that *in all areas of the Devils Lake Region*, respondents felt that the Army Corps should have been open to real input from the public. This view was held by 75% of those from downstream communities, 67% of those from communities west and southwest of Devils Lake, 33% of those from Spirit Lake Nation, and 29% of those in the Stump Lake area. Only 14% of those north and northwest of the lake, and 13% of those from Red River communities held this view. A majority of 86% of respondents from communities north and northwest of the lake felt that the Army Corps has held enough meeting and conducted enough studies, and that they now just need to take action.

Table 19. Respondents' Perceptions of Opportunity for Community Involvement in the Scoping Process by Community

Description	North-Northwest		West-Southwest		Spirit lake Nation	
	#	%	#	%	#	%
Army Corps did an adequate job of providing for public/community input	2	29	0	0	2	22
Army Corps really can't do anything -- they're just told what to do by the politicians	1	14	1	17	0	0
Don't feel that the Army Corps provided for enough public/community input	1	14	1	17	2	22
Army Corps/State doesn't care about us, since we're too small in numbers/don't feel we have much voice	0	0	1	17	1	11
Army Corps should have held more meetings or held meetings at more times and places that people could attend	1	14	1	17	4	44
Army Corps should have been more open to real input from the public (not just pushed their own agenda)	1	14	4	67	3	33
Army Corps should have used more appropriate channels to provide info. (tribal council, town board, etc.)	0	0	0	0	2	22
Army Corps has held enough meetings/done enough studies -- they need to take action now/do something	6	86	0	0	0	0
Army Corps has their minds made up -- they don't really want any input from the public	1	14	2	33	0	0
Other concerns, comments, views on scoping process	2	29	4	67	8	89

Description	Stump Lake Area N = 7		Downstream Communities N = 8		Red River Communities N = 8	
	#	%	#	%	#	%
Army Corps did an adequate job of providing for public/community input	4	57	1	13	5	63
Army Corps really can't do anything -- they're just told what to do by the politicians	1	14	0	0	1	13
Don't feel that the Army Corps provided for enough public/community input	0	0	4	50	1	13
Army Corps/State doesn't care about us, since we're too small in numbers/don't feel we have much voice	5	71	0	0	2	25
Army Corps should have held more meetings or held meetings at times and places that people could attend	3	43	1	13	1	13
Army Corps should have been more open to real input from the public (not just pushed their own agenda)	2	29	6	75	1	13
Army Corps should have used more appropriate channels to provide info. (tribal council, town board, etc.)	1	14	0	0	1	13
Army Corps has held enough meetings/done enough studies -- they need to take action now/do something	2	29	0	0	1	13
Army Corps has their minds made up -- they don't really want any input from the public	1	14	0	0	2	25
Other concerns, comments, views on scoping process	5	71	4	50	5	63

Discussion of Findings

As mentioned in the introductory section of this report, environmental justice analysis focuses on four main areas: *demographics*, *disproportionate impact*, *stakeholder involvement*, and *benefits and burdens*. In this section, the initial findings presented above are discussed in terms of these four components, in order to develop a comprehensive picture of potential environmental justice considerations for the proposed Devils Lake Emergency Outlet. According to the guidelines set forth under Executive Order #12898, “Federal Actions to Address Environmental Justice in Minority and Low Income Populations,” if the data suggest that federally recognized Tribes or low-income communities might shoulder a disproportionate share of the environmental, economic, or social burdens from construction of the proposed emergency outlet, this information needs to be included in the environmental impact assessment process and inform subsequent decisions on this proposed project.

Demographics

In the Devils Lake Region, there is one federally recognized Tribe, the Spirit Lake Nation Sioux Tribe, south of Devils Lake. Other areas of Devils Lake do not include federally recognized Tribes or significant populations of communities of color. For this study, comparisons between Tribal and Non-Tribal respondents are used to assess differences in perceptions between federally recognized Tribes and other communities.

Low-income communities are found in Benson County and in the five-mile buffer along the Sheyenne River between Cooperstown and Fort Ransom, described earlier and defined as “the downstream community”. Based on U.S. Census data described previously, communities west and southwest of Devils Lake, Spirit Lake Nation, and the downstream community are determined (for purposes of this analysis) to be potential environmental justice communities. Respondents from representatives of these groups are compared to other groups of respondents in terms of examining disproportionate impacts, stakeholder involvement, and benefits and burdens.

Benefits & Burdens

Opinions on Flood Control Options

Tribal and Non-Tribal Respondents. Among Tribal respondents, opinions on the proposed west-end outlet and other outlet options do not appear to indicate a single viewpoint held by those from Spirit Lake Nation. Tribal respondents were mixed to some degree, with a majority preferring no outlet of any kind, followed by those who supported a west-end outlet, or an east-end outlet, respectively. Views among Tribal respondents ranged between feeling a spiritual connection to Devils Lake and responsibility of stewardship, to experiencing personal difficulties as a result of the rising lake levels, believing that an outlet might help regain homes or property currently lost to flooding. In comparison, non-Tribal respondents were also divided in their opinions of various outlet options, with a majority supporting an east-end outlet, and the second largest percentage preferring that no outlet be constructed.

In terms of other options to control flooding in Devils Lake, Tribal respondents were more likely than non-Tribal respondents to see the importance of realizing that the lake levels fluctuate in a

natural cycle, and that nature needs to be allowed to take its course. The larger percentage of Tribal respondents expressing this view may reflect cultural ideals and the importance of seeing the flooding as a natural phenomenon that will resolve itself in its own time. Both groups felt that it was important to consider modifying the way people live to accommodate fluctuating lake levels, some voicing the opinion that Devils Lake may not be the right place for development. In addition, some non-Tribal respondents voiced the need for the state to develop a comprehensive water management program.

Devils Lake Region Communities. Taken together, respondents from areas described above as potential environmental justice communities (communities west and southwest of Devils Lake, Spirit Lake Nation, and the downstream community) appear to be largely unsupportive of any kind of outlet project, and to a lesser degree supportive of an east-end outlet. With some exceptions from Spirit Lake Nation, few respondents in these areas favor the currently proposed west-end outlet. Those from the downstream community overwhelmingly favor that outlet be constructed, while those west and southwest of the lake are divided between favoring an east-end outlet and preferring that no outlet is built. As mentioned earlier, these findings reflect, to some degree, a NIMBY attitude whereby respondents may not necessarily be completely opposed to an outlet, but do not want it built in their community. With some exception, then, findings from this study do not indicate support for the proposed west-end outlet among low-income communities or federally recognized Tribes.

Communities in other areas of the lake, (for which U.S. Census data does not indicate significant low-income, community of color, or Tribal populations) are overall more supportive of various outlet options, including both east and west-end outlets, an inlet-outlet project, and the recently proposed plan of channeling water from Devils Lake into Stump Lake.

Perceptions of Upper Basin Drainage

Drainage of wetlands in the upper basin area of Devils Lake is perceived by some to have an impact on the current flooding situation. While some feel that the draining has little or no impact on lake levels, others feel strongly that limiting or stopping this practice would be an effective alternative to building an outlet from Devils Lake. Attitudes and perceptions in this area appear to be related to respondents' views of the proposed outlet options, and of impacts to others and to themselves of Devils Lake flooding. For this reason, it is important to include views on upper basin drainage as an attitudinal variable in this study.

Devils Lake Region Communities. A comparison of various communities in the Devils Lake Region indicates strong differences with regard to perceptions of upper basin drainage. As might be expected, respondents north and northwest of Devils Lake tend to view this practice more favorably, and see it as a necessary part of that area's economy. Respondents in this area also tend to feel that this drainage is only a small part of the overall flooding problem. This view was also shared by a small number of respondents in other areas of the lake region.

In contrast, those in the southern and southeastern areas of the Devils Lake Region hold more critical views of upper basin drainage. Overwhelmingly, respondents from the downstream community favor stopping upper basin drainage completely, and feel that this practice is a large part of the flooding problems in Devils Lake. This view was also held by a small number of respondents in the Stump Lake area and from Spirit Lake Nation.

Findings in this area, therefore, show that respondents from some low-income communities (primarily the downstream community) and to a lesser degree, respondents from federally recognized Tribes, feel that the practice of upper basin drainage is exacerbating the flooding problems at Devils Lake. These respondents have voiced the concern that the proposed outlet would be unnecessary if this practice were stopped, thereby avoiding negative impacts to their communities resulting from construction and operation of an outlet.

Disproportionate Impacts: Perceived Impacts of the Proposed Outlet

In this area, findings represent responses to a variety of questions about potential impacts of the proposed emergency outlet. Respondents were asked whom they thought would *benefit* or *be disadvantaged* by the outlet, and responses included information on impacts to respondents themselves and impacts to others.

Groups or Communities Benefiting by the Proposed Outlet

Tribal and Non-Tribal Respondents. While respondents of both groups felt that people in the City of Devils Lake would benefit from the outlet, more non-Tribal than Tribal respondents held this view. Tribal respondents were more likely to see politicians and state officials as benefiting, as well as the Army Corps and its contractors. These findings suggest that Tribal member are more likely than others to perceive the proposed outlet project as a political issue -- as a project being developed for the benefit of agencies and individuals in power, rather than for the good of those in the entire Devils Lake basin. Few respondents (either Tribal or non-Tribal) felt that Spirit Lake Nation would benefit by the proposed outlet project.

Devils Lake Region Communities. Respondents from communities north of Devils Lake, in the Stump Lake area, and from Red River communities were more likely to see the City of Devils Lake and farmers and ranchers in the area surrounding the lake as benefiting from the proposed emergency outlet. In contrast, tribal respondents (as mentioned above) and low-income communities (west and southwest of Devils Lake and the downstream community) were more likely to view politicians and state officials, as well as the Army Corps and its contractors as benefiting.

These comparisons indicate that those respondents from areas that would not be considered environmental justice communities, tend to hold views that reflect a more local, specific focus for those who will reap the advantages of the proposed outlet project. In contrast, respondents from potential environmental justice communities see the proposed outlet as most beneficial to those in power (State officials, other politicians, and the Army Corps of Engineers, and its potential contractors). These findings may indicate an important difference in focus between these two groups, and a perception on the part of respondents from potential environmental justice communities that the proposed outlet project is more of a political process, intended to serve those in power instead of community members in the Devils Lake Region.

Groups or Communities Disadvantaged by the Proposed Outlet

Tribal and Non-Tribal Respondents. Findings in this area indicate that Tribal respondents were much more specific than others in their views of who would be disadvantaged by the proposed outlet. Respondents from Spirit Lake Nation see themselves, downstream communities,

and those in the direct path of the pipeline (west and southwest of the lake) as being disadvantaged by the outlet. Conversely, non-Tribal respondents were more divided in their views of those who would be adversely affected. Although half of the non-Tribal respondents also feel that downstream communities would be disadvantaged, they are more evenly divided with regard to other groups at a disadvantage (such as communities near Stump Lake, Spirit Lake Nation, taxpayers, and those in the direct path of the pipeline). A significant finding, however, was that a number of non-Tribal respondents felt that no one would be adversely affected by the proposed outlet. In contrast, a number of Tribal respondents expressed ideas about the need to allow the lake to take its natural course. These responses reflect more specific views about the disadvantages to specific groups of man-made structures to control flooding.

Respondents' Perceptions of Impacts to Themselves of the Proposed Outlet

Respondents were asked how the proposed outlet project would affect them personally. Data from this study show that there are sharp differences in perceptions between those respondents in low-income communities and to some degree, Tribal members, with regard to impacts to themselves of the proposed emergency outlet.

Devils Lake Region Communities. Respondents from low-income communities were much more likely to feel that the proposed outlet would impact them personally. Those in communities west and southwest of the lake felt that property damage, noise, problems from pumps, road flooding, and impacts to property values and taxes, would pose serious for them. Respondents from downstream communities felt that there would be direct effects to their income or livelihood; property damage; tax increases; flooding of homes, farms or ranches; flooding of roads; and problems raising cattle. Respondents from Spirit Lake Nation reported similar impacts to themselves, although in smaller percentages. Conversely, the data indicate that respondents from communities north and northwest of the lake, as well as those in the Stump Lake area and from Red River communities report almost no impact to themselves (with the exception of some respondents north and northwest indicating that *unless* an outlet goes in, their homes or farms would be flooded).

In general, these data indicate that perceived negative impacts of the proposed outlet to respondents, themselves, appear to be limited primarily to those in potential environmental justice communities. In light of the Executive Order on Environmental Justice, these findings should be fully considered as part of the NEPA decision-making process.

Respondents' Perceptions of Impacts to Others of the Proposed Outlet

Tribal and Non-Tribal Respondents. Data from this study show that both Tribal and non-Tribal respondents are concerned about downstream areas being flooded in times of heavy rain if the proposed outlet is built. While some Tribal respondents felt that Canada and other states would oppose an outlet (due to the impacts on water quality or quantity), this view was held by almost half of non-Tribal respondents. Findings also indicate that both Tribal and non-Tribal respondents felt that Spirit Lake Nation had registered opposition to the proposed outlet project, and over half of the Tribal respondents felt that there was some degree of disagreement within Spirit Lake Nation regarding the advantages or disadvantages of an outlet.

Findings in this area suggest that Tribal respondents and those from low-income communities have greater awareness of, and empathy for potential impacts to others of the proposed outlet. It could be argued, especially in the case of low-income communities, that the

livelihoods of these respondents would be more easily affected by such impacts, thus allowing them to have greater understanding for others who may also be impacted if an outlet is built.

Perceived Environmental Impacts of the Proposed Outlet

Tribal and Non-Tribal Respondents. Findings from this study do not appear to suggest significant differences in the perceptions of environmental impacts between Tribal and non-Tribal respondents. Both groups mentioned potential problems with water quality, bank erosion, and to a lesser degree, loss of trees or plants. However, Tribal respondents were somewhat more concerned with the potential for agricultural runoff from pesticides or chemicals that would impact water quality downstream if an outlet were built.

Devils Lake Region Communities. Findings from this study show that respondents from downstream communities are unanimous in their view that water quality would be adversely impacted as a result of an outlet to the Sheyenne River. This view is also shared by half of the respondents from communities west and southwest of the lake, and from Red River Communities. A majority of respondents from the downstream community, as well as a third of respondents from communities west and southwest of the lake, Spirit Lake Nation, and Red River communities, are also concerned that bank erosion will be a serious problem. Somewhat significant is the finding that respondents from communities north and northwest of the lake and those in the Stump Lake area did not often mention environmental impacts among their concerns with regard to the proposed outlet. These findings indicate, then that the perception of negative environmental impacts from the outlet were most often reported by respondents from communities that would directly experience those impacts.

Stakeholder Involvement: The Army Corps Scoping Process

Stakeholder involvement is a key component in assessing whether a potential environmental justice situation exists with regard to a proposed action, and is an important part of the NEPA decision-making process. During the course of the focused interviews, respondents were asked about their awareness of and involvement in the Army Corps of Engineers scoping process on the proposed emergency outlet. In addition, participants were asked about whether they felt their views had been heard, and also asked about their assessment of opportunities for community involvement in the scoping process.

Respondents' Awareness of or Involvement in the Scoping Process

Tribal and Non-Tribal Respondents. As mentioned earlier, it was not surprising to find a high level of awareness among respondents in this study, since a purposive sample was used of those individuals known to have an interest in the proposed outlet project. However, data from this study showed that Tribal respondents were less likely than non-Tribal respondents to have made their views known verbally or in writing at the scoping meetings. Some Tribal members felt that not all members of the Tribal community had had access to the scoping meetings. Some felt that the Army Corps had dealt more directly with the Tribal Council, rather than the Tribal community as a whole. This may account for fewer Tribal respondents reporting that they had made their views known at the meetings. However, a number of other actions regarding the outlet were mentioned by Tribal respondents, such as testifying at meetings of the National Environmental Justice Advisory Council, groups within Spirit Lake Nation presenting

resolutions on the outlet to the Tribal Council, surveys of Tribal members on water management options for Devils Lake, and Tribal members meeting with other groups opposed to the outlet, as well as with representatives of the Canadian Government.

Devils Lake Region Communities. Respondents in all areas of the Devils Lake Region were well represented in terms of awareness of the scoping process and attendance at meetings. Over three-quarters of respondents from communities north and northwest of the lake, and from downstream communities had made their views known at the scoping meetings, although respondents from all other areas of the lake reported high levels of participation as well.

Respondents in communities west and southwest of the lake and those from the downstream community, however, were most likely to take other opportunities to make their views known, such as forming citizens groups, or testifying before committees in order to register their opposition to the proposed outlet. In addition, about half of those west and southwest of the lake took legal action to keep the outlet from being built. These findings show that respondents from low-income communities have felt the need to take more specific actions in order to ensure that their interests in opposing the proposed outlet were represented.

Respondents' Perception of Their Views Being Heard

During the course of the interviews, respondents were asked if they felt that their views on the proposed outlet had been heard by the Army Corps of Engineers (and to some degree by other decision makers). Participants in the study responded with a variety of opinions in this area, and some indicated that the efforts of their citizens or community group had made a difference in feeling that they had a voice in the process.

Tribal and Non-Tribal Respondents. The data show little difference between Tribal and non-Tribal respondents in this area. About a third of both groups felt that their views had been heard, but not necessarily acted on, while another third (of both groups) did not feel that their views had been heard. These findings point to the diversity of interests within the Devils Lake Region, and the fact that there appear to be many individuals, both Tribal and non-Tribal, who have not felt heard as a result of the scoping process. Others acknowledged that they felt heard to some degree, but have not felt that the Army Corps necessarily acted on their views. A number of non-Tribal respondents, however, reported that the efforts of their community or citizens groups have made some difference in the process.

Devils Lake Region Communities. Data from this study indicate that few respondents from any area of the lake felt that their views had been heard and acted on. A large number of respondents (from various communities in the lake region) felt that their views had not been heard, although respondents from Red River communities were less likely to express this view. As mentioned previously, an important dynamic observed in the data is that collective effort seems to have been an empowering factor for some groups. Over half of the respondents from communities west and southwest of the lake, and over a third of those from downstream communities felt that the efforts of their citizens or community group had made some difference.

Overall, findings in this area are significant, in that they point to the extreme diversity of opinion on the proposed outlet projects, and of the potential for the traditional scoping process to provide forums in which community members feel heard, and feel a part of the decision-making

process. These data may illustrate the need for outreach efforts that are customized to the needs and concerns of specific communities.

Respondents' Perception of Opportunity for Community Involvement in the Scoping Process

Participants in this study were asked about their views on opportunities for public or community involvement in the Army Corps scoping process. Respondents mentioned a wide variety of ideas, views, and perceptions on whether community members actually had a reasonable chance to voice their opinions and be part of the process with regard to actions on the proposed emergency outlet.

Tribal and Non-Tribal Respondents. For the most part, non-Tribal respondents had a wider variety of responses than Tribal respondents to the question of opportunity for community input. Although a few respondents from both groups felt that the Army Corps did an adequate job of providing for community input, about a third of those in each group felt that the Army Corps should have been more open to receiving real input for the public. A small number of Non-Tribal respondents, however, mentioned believing that the Army Corps was not really in a position to make a decision on the outlet, and that they simply were required to follow orders set forth by Congress and other political leaders. Another view voiced by Non-Tribal respondents was that the Army Corps has their minds made up, and doesn't really want any input from the public.

Tribal respondents, however, seemed more concerned with the lack of meetings on the proposed outlet project. Some respondents from Spirit Lake Nation mentioned that there had been some difference of opinion within the Tribal community regarding holding scoping meetings on the proposed outlet at the Reservation. These findings, therefore, reflect the view of some Tribal respondents that there were not enough meetings held at Spirit Lake Nation to allow for full public participation by the Tribal community.

Devils Lake Region Communities. Findings from this study indicate some significant differences in perceptions of opportunities for participation among various communities in the Devils Lake Region. Some respondents in the Stump Lake area seemed satisfied with the Army Corps' efforts to gather public input on the proposed west-end outlet project. However, a number of these same respondents feel that there has been very little opportunity for community involvement with regard to the proposed channel from Devils Lake to Stump Lake. In terms of this project, a number of respondents from this area voiced the concern that Nelson County needs to have more say in decisions that have a direct impact on their community. A majority of respondents in the Stump Lake area also felt that the Army Corps and the State do not really care about their views, since they are a small community, and feel that they probably don't have much voice in the overall decisions. An overwhelming majority of those in the north and northwest felt that enough meetings have been held. Very few respondents from other areas of the lake region held this view. Conversely, respondents from Spirit Lake Nation (as well as other respondents from the Stump Lake area) felt that the Army Corps should have held more meetings to gather public input on the outlet project.

A significant finding from this study was that respondents from communities west and southwest of the lake, as well as the downstream community and some respondents from Spirit Lake Nation, felt that the Army Corps was not open to real input from the public during the scoping process, and simply "pushed" the agenda for the proposed west-end outlet. It is important to note that these communities are all considered to be potential environmental justice

communities. It is even more critical, therefore, that in order to follow the guidance set up in Executive Order #12898, as well as for the NEPA decision-making process, these communities are provided with opportunities to be part of the decision-making process and to voice their concerns in an open, receptive atmosphere.

In contrast, respondents from communities north and northwest, those in the Stump Lake, and those from Red River communities did not have a large number of respondents expressing these sentiments. These findings may reflect the view that the proposed outlet primarily represents the interests of those north and northwest of the lake, and either represents, or at least does not conflict with, the interests of those east of Devils Lake. About half of those from communities west and southwest of the lake (the area of the proposed outlet) felt that the Army Corps already has their minds made up and does not want any real input from the public. Some respondents from Red River and downstream communities felt that there has not been an adequate, scientific assessment of the effects on downstream water quality and quantity of the proposed outlet.

In summary, respondents from the downstream community, communities west and southwest of the lake, and to some degree, from Spirit Lake Nation, were most likely to voice concerns about inadequate opportunities for community input with regard to the scoping process, or to feel that the Army Corps was not genuinely seeking input and feedback from the public on the proposed outlet. The potential environmental justice implications in this area should not be overlooked with regard to providing full opportunities for community participation and feedback in the decision-making process.

Conclusions

This study has examined the potential impacts of the proposed emergency outlet on environmental justice populations: federally recognized Tribes and low-income communities. In this section, an overview is presented that summarizes the study's findings on each community, as well as key areas of consideration for environmental justice assessments. Since demographic data and the determination of potential environmental justice communities were presented in detail earlier in this report, this section will summarize *disproportionate impacts*; *benefits and burdens*; and *stakeholder involvement* with regard to these communities. Recommendations for policy considerations are presented at the end of this section.

Summary of Devils Lake Communities

When data from the focused interviews is considered as a whole, specific patterns emerged for different communities. In addition, particular attitudes or values emerged that formed patterns among various groups of respondents. Each interview was examined for its overall perspective (or perspectives) that provide a picture of the larger values embraced by specific groups (Appendices G and H). These values are discussed briefly for each community, and interview data from respondents in each community is summarized.

Respondents West and Southwest of Devils Lake

Overall, respondents west and southwest of Devils Lake feel strongly about the potential negative impacts of an outlet to their property and community. Some respondents characterized the various outlet projects as a transference of the flooding problem from one area of the lake to someone, or somewhere else. One respondents felt that there were two categories of people interested in the Devils Lake outlet issues: those who are directly impacted by the lake, and those who are impacted by the proposed solutions. Residents on the west side of Devils Lake would primarily be affected by the proposed outlet, if the Peterson-Coulee Route is chosen.

Some communities in the north part of Benson County (such as Minnewaukan and Churchs Ferry) are experiencing direct impacts from flooding and are not opposed to an outlet project, but prefer that it be built on the east side of the lake. However, those in the southern part of the Benson County will be directly affected if the outlet is built along the Peterson-Coulee Route. One respondent mentioned that a problem associated with this route is that a number of residents in Benson County are older residents, without the money, time or energy to effectively oppose this public project. Other respondents in this area feel that their farmland will be flooded if an outlet is built along this route. However, due to the perceived impacts to their property, a number of residents have come together to form a community association, using litigation to oppose the Peterson-Coulee Route.

Again, while some respondents west of Devils Lake would prefer to see an outlet built on the east side of Devils Lake, others don't want an outlet built at all. Some respondents west and southwest of the lake feel that nature needs to be allowed to take its course. Other respondents in this area, however, are in favor of the proposed channel to Stump Lake, believing that it might help decrease the level of Devils Lake in the short term. Adequate compensation for farmers and others in the Stump Lake area, though, was voiced as a concern.

Some respondents on the west side of the lake are concerned about the NEPA process being carried out thoroughly. The view of one respondent is that the NEPA process can't be arbitrarily expedited and still remain fair to those who are potentially impacted. This respondent voiced the concern that holding discussions, public meetings, and doing cost comparisons on viable alternatives is compromised when the NEPA process is rushed through, noting that actual decisions need to be the result of public processes.

In terms of overall values expressed in the interviews, respondents in these communities embrace the protection of property -- farmland, ranchland and homes (Appendix I).

Respondents South of Devils Lake

Respondents in this area are members of the Spirit Lake Sioux Nation. A majority of Tribal respondents oppose the proposed west-end outlet, whether through the Peterson-Coulee or the Twin Lakes Route. A concern of some Tribal members is that historical and cultural resources will be destroyed or damaged if an outlet is constructed through Tribal lands. These resources include historic and sacred sites and areas around the lake used as spiritual grounds. An additional perspective voiced by Tribal respondents is that the lake needs to be allowed to go its own way, without interference from man-made structures, and that people have to learn to adjust to where the lake goes and accept its natural path.

A smaller number of Tribal respondents, however, were in favor of an outlet, and felt that it would relieve flooding on the reservation and possibly provide jobs for the Tribe. For the most part, these respondents were supportive of an outlet only if Spirit Lake Nation had a strong role in the decision-making process, and in all aspects of construction, operation, and maintenance. Some respondents felt strongly that the Tribe should be fairly compensated if an outlet is constructed on Tribal lands.

A majority of Tribal respondents do not favor the proposed channel to Stump Lake. Some respondents felt that the water should be allowed to flow naturally to Stump Lake, seeing it as the natural channel, but were opposed to a man-made structure. Others felt that the salinity content of water flowing from the east end of the lake would be too high. Upper basin drainage was also a concern of a majority of Tribal members. Many respondents viewed draining of wetlands as a key source of flooding on Devils Lake, and a viable option for controlling flooding that has not been explored fully enough.

Some respondents from Spirit Lake Nation felt that increased flooding on the reservation was a result of diking and raising of roads on the north side of Devils Lake, believing that excess water from the lake would have flowed to Stump Lake already if these dikes and roads had not been built, thereby causing less flooding on Tribal lands. In addition, some respondents feel that members of the Tribal community should have equal access to flood compensation or wetlands conservation programs as do landowners in other parts of the Devils Lake Basin. Members of Spirit Lake Nation have met recently with the Premier of Manitoba and representatives of downstream communities to voice common concerns about water quality and negative impacts to natural resources if a Devils Lake outlet is constructed.

In terms of overall values expressed in the interviews, a majority of Tribal respondents focused on the protection of cultural or spiritual resources in their comments. Other values included the protection of Tribal sovereignty and the protection of property -- farmland, ranchland, and homes (Appendices H and I).

Executive Order #12898 requires that special attention be given to the impacts of federally-funded projects on both low-income communities and federally recognized Tribes, including Tribal communities. In addition, Spirit Lake Nation is within the boundaries of Benson County, which, as mentioned above, is well under the state average in terms of median income. For these reasons, Spirit Lake Nation is considered an environmental justice community in analyzing the impacts of the proposed Emergency Outlet.

The Downstream Community

These respondents represent communities along the Sheyenne River, and would be recipients of water channeled out of Devils Lake through an outlet. These communities fall within the boundaries of Nelson, Griggs, Barnes, and Ransom Counties. Among cities represented by the downstream community are Valley City, Cooperstown, Kathryn, and Fort Ransom.

Due to concerns about water quality and water quantity, all of the respondents from the downstream community are opposed to the proposed west-end outlet. Some respondents feel that their farms, pastures, or roads will be flooded, and that negative impacts to water quality might pose problems for watering cattle. A number of respondents question the effectiveness of an outlet if the flow is controlled to such a degree to avoid flooding downstream, arguing that flow rates low enough to avoid flooding would reduce lake levels by very little, while still having

serious impacts on water quality downstream. In addition, some respondents are concerned that in times of heavy rain, increased water from an outlet could cause severe flooding problems for downstream communities.

A common sentiment among this group of respondents is that people in the northern part of the Devils Lake Basin should not be trying to “push their problems on others” until they have worked to address them locally, by tightly controlling or eliminating upper basin drainage. A number of downstream respondents cite figures reported by the U.S. Fish and Wildlife Service in referring to the number of acres (approximately 189,000) that are currently being drained from the upper basin and the potential impact of this drainage on the level of Devils Lake. Some respondents have argued that no one has provided data that refutes this 1997 Fish and Wildlife data, but that some State authorities still won’t accept their findings.

Additional concerns of downstream respondents with regard to the proposed outlet include the potential for negative impacts to the fisheries in Valley City and to areas listed in the Registry of Historical sites along the Sheyenne River, severe bank erosion, loss of trees, and the cost of water treatment plants for Valley City and other townships that would become necessary.

In terms of the proposed channel to Stump Lake, a majority of respondents from downstream communities do not feel that it would be beneficial. Concerns cited include impacts to the wildlife refuge, the increased potential for a natural overflow into the Sheyenne River, and the view that the constructing the channel would be a temporary solution – addressing problems in one area, but creating major problems in another part of the Devils Lake Basin. A small number of respondents had no opinion, or did not feel that they knew enough to have an opinion about the proposed Stump Lake channel.

In terms of overall values, interviews with a majority of respondents from the downstream community focused on the protection of natural resources, followed by protection of watersheds/water quality, and protection of wildlife or habitat (Appendix I).

Stump Lake Area

Overall, respondents southeast of Devils Lake, in the Stump Lake area (Nelson County), are supportive of an outlet project. A majority do favor the proposed west-end outlet, while a large number also would support an outlet from the east end of Devils Lake, as long as there is a corresponding outlet to the Sheyenne River. Respondents in this area appear to support the proposed west-end outlet, since construction and operation would not impact them directly, and also may prevent Devils Lake from spilling over naturally into Stump Lake. A main concern of these Nelson County residents is that they have a voice in the decision-making process, especially with regard to the proposed channel to Stump Lake. A number of these respondents noted that since they are small in number as a community, they have felt that their views have been largely disregarded by State and Federal officials.

What is clear from interview data is that these respondents strongly oppose the proposed channel between Devils Lake and Stump Lake that would not subsequently flow into the Sheyenne. Concerns about the impacts of the proposed channel to Stump Lake include flooding of farms and homesteads; flooding of main county roads that would result in a lack of access to hospitals, emergency medical services, grain elevators, and in some cases, access to portions of farmers’ own property; damage to water lines supplying the City of Lakota and surrounding

areas; and severe impacts to the wildlife refuge at Stump Lake. One respondent estimated that 10,000 acres of farmland would be lost, as well as over 270 acres of trees.

A small number of respondents in this area feel that upper basin drainage is contributing to the flooding problems at Devils Lake and should be minimized or eliminated entirely. Similar to respondents in other areas of the lake region, a number of those in the Stump Lake area felt that those north of Devils Lake and in the City of Devils Lake should not be passing their problems along to farmers, ranchers, and homeowners in other areas of the lake region. Similarly, some in this area also feel that the raising of dikes and roads around Devils Lake has contributed significantly to the speed of the water approaching Stump Lake. Some respondents in this area feel that if water from Devils Lake spills naturally over into Stump Lake, it would happen at a rate of flow that would not cause massive flooding. A majority in this area, however, feel that a west-end outlet would prevent this from happening if it built in the very near future.

Overall values observed in interviews with respondents in the Stump Lake area centered on protection of property, protection of community rights, and to some degree, the protection of human interests over those of wildlife (Appendix I).

Communities North-Northwest of Devils Lake

Respondents north of Devils Lake unanimously support the idea of an outlet to control flooding, but most feel that an east-end outlet is more appropriate, either due to water quality issues (i.e., not taking the best water off the lake, causing the lake conditions to deteriorate), or the appropriateness of following the “natural flow” of the lake out the east end. Some respondents in this group, however, do not feel that water quality is an issue, noting that there has been a fair amount of agricultural runoff into the Sheyenne and Red Rivers as well, and that the biota in these two rivers is not significantly different from that found in Devils Lake.

A majority of these respondents are skeptical that an outlet will actually be constructed anytime soon, and have felt frustrated by the lack of action. Some respondents are in favor of an outlet, believing that it will help decrease lake levels overall, and stabilize the region. Others are more directly impacted by flooding at this point, and feel that an outlet will keep flooding on their property from getting worse. Concern for the impacts of an outlet on others was also expressed. One respondent felt that if a west-end outlet is built, Spirit Lake Nation should be compensated for having an outlet on Tribal lands. Another respondent felt that Valley City should be provided with a water treatment plant.

Regarding the proposed channel to Stump Lake, respondents’ views are mixed, with some feeling that this project would be moving the problem from one area to another, flooding people in that area (unless there’s a corresponding outlet to the Sheyenne). Others feel that it might help some, but express doubts about whether current flooding on their property would actually decrease, or whether the project can actually move through the permitting process. A majority of respondents in this area felt that both an inlet and outlet to and from Devils Lake would stabilize the lake and allow for the best economic development of the area, and that revisiting the original Garrison-Diversion plan would be a good idea.

Respondents in this area are also mixed with regard to their views of the best outlet route. Some are supportive of the proposed west-end outlet, believing that downstream water quality would be less of an issue for both downstream communities and the Canadian government. Others, however, feel strongly that the water quality is better on the west end of the lake, and that

fish hatcheries in Devils Lake would be negatively impacted if the best quality water is channeled into to the Sheyenne River.

Some respondents north and northwest of Devils Lake are currently being impacted by flooding, losing a number of acres of farmland or pastureland. However, while most feel that flooding on their property is a direct result of increased precipitation rates affecting Devils Lake, a small number feel that their cropland and pastureland has been flooded as a result of upper basin drainage. While still supportive of an outlet to the Sheyenne River, these respondents feel that draining of wetlands in the upper basin should be minimized or eliminated completely. Although respondents north of the lake are mixed with regard to their views on the impact of upper basin drainage to the flooding problems, a majority felt that it is a small or insignificant part of the problem.

In terms of overall values brought up in the interviews, nearly all of the respondents focused on the protection of property. Some also focused on the protection of income or livelihood, or the protection economic development (Appendix I).

Red River Communities

Respondents in this group represent cities and town along the Red River, primarily Fargo and Grand Forks. While these areas of the Devils Lake Region would not be impacted directly in terms of construction of an outlet, some believe that water quality in the Sheyenne would suffer as a result of water being channeled into the Sheyenne River from Devils Lake. While almost half of the respondents in this group support the proposed channel from Devils Lake to Stump Lake, the same number would prefer not to have any man-made control structure built. Some respondents expressing this view feel strongly that people have built on natural flood plains during dry cycles, and that we need to rethink our patterns of settlement to accommodate the lake's natural cycles.

One respondent mentioned that with any man-made channel or outlet project, there is always a concern that there will be excessive flows that are not concurrent with a more natural way of doing things. Similar to the concern of other groups, some respondents in this area feel that the proposed Stump Lake channel is a “band-aid” solution that will temporarily solve problems in one area, but create problems in another location.

A small number of respondents in Red River communities do favor an outlet from Devils Lake to the Sheyenne River. One respondent supports the proposed west-end outlet, noting that the situation in the Devils Lake area has gotten worse. This respondent felt that an outlet would not solve all the problems in the Devils Lake area, but it would help, as long as state and federal funding can be used for water treatment in Valley City. Another respondent favors taking an outlet through the east end of Devils Lake, noting that the natural flow of the water is in that direction, making it the best plan.

Other respondents in this group feel that the only real solution to the flooding at Devils Lake is climate change. A majority of respondents in Red River communities feel that the lake will naturally spill over to Stump Lake within the next year or two, and may even flow naturally into the Sheyenne within 10-15 years. With regard to overall values expressed in the interviews, respondents from Red River communities stressed the rethinking of our relationship to the natural world (getting away from the idea of “conquering nature”), as well as the protection of property (Appendix I).

Benefits and Burdens

Perceptions of Flood Control Options

Data from this study indicate that there is mixed support for the proposed emergency outlet. To some degree, the findings illustrate a NIMBY attitude, whereby those in one geographic area support an outlet only if it is constructed in another area of the Devils Lake Region, and not in their own community. It is important to acknowledge, however, the number of respondents from potential environmental justice communities who not want any kind of outlet project built, and for whom the impacts of the proposed Emergency Outlet would be negative. For Tribal respondents, and those from downstream communities, more respondents expressed this view than favoring any of the other outlet options. Those from communities west of Devils Lake were equally divided between favoring no outlet and favoring an east-end outlet. These findings make a strong statement about the perceived adverse impacts of the proposed outlet to the Tribal community, and those in low-income communities.

Another important finding from this study is the overall level of support for various outlet options. When all responses are taken together, about a third of respondents feel that no outlet should be constructed, another third favor an east-end outlet, and about 20% support the proposed west-end outlet. Other respondents favor the proposed channel from Devils Lake to Stump Lake, or other outlet options.

The lack of consensus with regard to support of the proposed west-end outlet project is significant, in that a number of respondents, primarily those most representative of potential environmental justice communities, are not in favor of any outlet project, and see other alternatives as more beneficial to them. Such alternatives include letting nature take its course, minimizing or stopping upper basin drainage, and continuing infrastructure improvements.

Upper Basin Drainage

As mentioned earlier, data from this study show that respondents' views and perceptions on upper basin drainage are strongly related to their opinions on the proposed Emergency Outlet and to the impacts they perceive on both the flooding problems in general, and the potential effectiveness of the various outlet options. Based on the variety of responses in this area, there appears to be a need for more definitive information on the impacts of upper basin drainage on Devils Lake flooding. Those from communities north and northwest of Devils Lake are most likely to favor upper basin drainage, perceiving it as having little impact on flooding in Devils Lake. Conversely, those from Spirit Lake Nation and from downstream communities are more likely to feel that this practice contributes significantly to the flooding problems and should be stopped completely or minimized.

Since these perceptions tend to vary with geographic location, findings in this area may be illustrative of a lack of empirical information on the actual relationship between upper basin drainage and lake levels. Since the perception of upper basin drainage as negatively impacting flooding at Devils Lake is more common among those respondents from potential environmental justice communities, it is important to conduct further research to determine whether these communities are indeed disadvantaged by this practice, and whether the benefits are accruing primarily to those in specific areas, and/or to those in higher income groups. Findings from these studies would help inform the decision-making process on the proposed Emergency Outlet.

Other Water Management Options

One sentiment that was voiced both by respondents from potential environmental justice communities and other communities was the view that an alternative to the proposed outlet project is the realization that lake fluctuations are part of a natural cycle, and that nature needs to be allowed to take its course. (The percentage of respondents who held this view was highest, however, among Tribal respondents.) Another perception held by members of both groups was that we may need to consider modifying the way we live, possibly realizing that Devils Lake may not be the best place for development. Some respondents from the scientific community echoed these views, adding that more education is needed so that the public understands the actual flood/drought cycles of the lake, and takes into consideration long-term modifications to our planning and development practices in some areas.

Disproportionate Impacts

It has been an important part of this study to focus on the perceived impacts of the proposed Emergency Outlet, both to respondents themselves, and to others. Tribal respondents, as well as respondents from low-income communities tend to see the proposed outlet as primarily benefiting agencies, such as state officials and the Army Corps and its contractors. Similarly, these groups saw little advantage of the outlet to themselves, with Spirit Lake Nation and downstream communities often viewed as groups for whom the outlet would have a negative impact. Many respondents (from the entire sample) viewed the town of Devils Lake, as well as farmers and ranchers in the surrounding area, as benefiting from the outlet. However, this view was more common among respondents *less* representative of low-income communities or federally recognized Tribes. These findings may illustrate differences in perceptions of economic and political power among Tribal members and low-income communities.

In terms of perceived impacts to themselves, respondents from potential environmental justice communities were far more likely to report concerns about damage to property, potential flooding (for downstream communities), noise from pumps, flooding of roads, and problems raising cattle. The data shows that respondents from other communities (those not considered potential environmental justice communities) reported almost none of these concerns. Respondents from low-income communities and Tribal members also tended to voice more awareness of the impacts to others of the proposed outlet. These findings point toward more disproportionate impacts perceived by environmental justice communities, and few, if any, adverse impacts perceived by more advantaged groups. This should be an important area of focus in the NEPA decision-making process.

Stakeholder Involvement

Data from this study show that a majority of respondents in this study feel that their views either have not been heard, or have been heard, but not acted on. These findings call into question the effectiveness of the public information process. It is likely that in this case, different groups need different kinds of involvement, such as focused outreach for the Tribal community and other communities whose homes or livelihoods would be directly impacted by the proposed outlet project. For example, Tribal respondents were more likely to feel that the number of meetings held to provide and gather information was inadequate, while non-Tribal respondents were more likely to feel that enough meetings had been held, whether or not they felt that their views had been heard or acted on.

Findings from this study suggest that the traditional scoping process may not be the most useful form of gathering community input when dealing with potential environmental justice populations. Data from this study suggest that this process may be limited in its ability to delineate relevant environmental justice issues with regard to a proposed project. Although respondents in this study had a high level of awareness of the Army Corps' scoping process on the proposed emergency outlet, findings from this study lead to the question of whether this process is the best vehicle for public involvement and participation when environmental justice issues may exist.

Findings from this study also indicate that many respondents felt that the scoping process did not allow for or welcome *real* input from the public. While some respondents believed that the Army Corps was simply following mandates already set for them, others felt that the scoping meetings should have openly considered a variety of viewpoints and options. Some respondents felt that these meetings should have been held as a forum for gathering information on public opinion instead of limiting the meetings to providing a set agenda of information about the proposed outlet project, as many respondents reported. These sentiments were voiced by both Tribal and non-Tribal respondents. However, in terms of the various Devils Lake Region communities, respondents from low-income communities and Tribal respondents were more likely than others to express this. These findings suggest that environmental justice communities may feel inadequately represented, with little influence on actual decisions made with regard to the proposed outlet, raising questions about the efficacy of the traditional scoping process for identifying potential environmental justice issues.

Respondents from low-income communities also felt a greater need than others to take specific actions to ensure that their interests have been represented. In many cases, these respondents felt that the efforts of their community groups were more effective than participation through more traditional channels (such as attending scoping meetings, or writing letters to the state and federal agencies involved).

Participants in this study also voiced concern about the actual effectiveness of the proposed outlet and other structural impacts. (These responses are detailed in Appendix J). The opinion that an outlet would take only a few inches off Devils Lake was voiced primarily by respondents from communities west and southwest of the lake, from Spirit Lake Nation, and from the downstream community. Respondents in other areas of the lake (north and northwest, and Red River communities) were more likely to feel that an outlet would be able to control the lake level to some degree. These findings indicate that those from potential environmental justice communities have more concerns about whether or not the effectiveness of the proposed outlet would justify other potential adverse impacts (including cost factors) to themselves and to other communities.

Recommendations

As a result of information obtained from this study, recommendations are offered to the U.S. Army Corps of Engineers and other relevant agencies, with the goal of ensuring that environmental justice considerations are part of the NEPA decision-making process. As such, the following recommendations are offered:

- We recommend that specific attention be given to the impacts of the proposed Emergency Outlet to potential environmental justice communities in the Devils Lake Region. Based on

information on poverty levels obtained from U.S. Census data, communities west and southwest of Devils Lake and the downstream community are determined to be potential environmental justice communities. In addition, as a federally recognized Tribe, the Spirit Lake Sioux Nation is also determined to be a potential environmental justice community.

Data from this study indicate that areas west and southwest of Devils Lake, Spirit Lake Nation, and the 5-mile buffer on either side of the Sheyenne River between Cooperstown and Fort Ransom are potential environmental justice communities. U.S. Census data indicate that these communities range from 15% to over 200% above the state levels for those living in poverty. In addition, Spirit Lake Nation is a federally recognized Tribe, and as such, is included under the Executive Order on Environmental Justice. The proposed Emergency Outlet would have potentially disproportionate impacts on communities west and southwest of Devils Lake, to the Fort Totten Reservation, and to the downstream community.

- We recommend that the following impacts to communities west and southwest of Devils Lake, and to Spirit Lake Nation be carefully considered as disproportionate impacts to potential environmental justice communities and be included in the NEPA decision-making process:
 - destruction of property from outlet construction;
 - decrease in property values;
 - noise pollution from outlet operation;
 - impacts on cultural resources; and
 - impacts on community and spiritual values.
- We recommend that the following impacts to the downstream community be fully considered as disproportionate environmental impacts to a potential environmental justice community, and included in the NEPA decision-making process:
 - the potential for serious flooding during seasonal heavy rains or rapid snowmelt;
 - severe bank erosion;
 - loss of trees and plants;
 - loss of wildlife habitat;
 - lack of access to roads, impacting economic stability for low-income farmers;
 - loss of cropland and pastureland; and
 - negative economic impacts to cattle operations, due to both water quality and quantity.
- It is also recommended that specific scientific data be provided to downstream residents, so that they may accurately assess potential impacts to their communities of the proposed Emergency Outlet. We recommend that definitive information be provided on the impacts of the proposed emergency outlet on the Sheyenne River and on the subsequent impacts to downstream communities.

Respondents have serious concerns about potential impacts to water quality and water quantity as a result of Devils Lake water channeled from an outlet. In addition, these respondents question the effectiveness of the proposed outlet on the level of Devils Lake if flow rate is slow enough to avoid the Sheyenne River running at capacity year-round. A number of these respondents contend that if flow rates are high enough to impact the lake

level as currently proposed, their communities would be in danger of serious flooding downstream during seasonal heavy rains or rapid snowmelt.

We also offer the following recommendations that are broader in scope, encompassing various communities in the Devils Lake Region, and the Region as a whole:

- We recommend that definitive information on environmental impacts and effectiveness of the proposed outlet on the level of Devils Lake be provided to members of the Spirit Lake Sioux Nation and to all community members in the Devils Lake Region. This includes empirical data specifying the amount of water expected to be removed annually by the proposed Emergency Outlet.

Respondents in some low-income communities feel that the proposed outlet would reduce lake levels by only a few inches per year. Considered in conjunction with perceived economic, environmental, and other impacts mentioned by low-income communities and federally recognized Tribes, respondents from these groups question whether the benefits of the proposed outlet project would outweigh the numerous costs involved to themselves and their communities. A goal set forth in NEPA is to “preserve important historic, cultural, and natural aspects of our natural heritage.”²⁸ Considerations of impacts to cultural resources on Tribal lands should be included as part of this goal.

- We recommend that the Army Corps provide all potentially affected communities detailed information on logistical and financial management of the proposed outlet, and on compensation and easement rights that would affect private property and Tribal lands impacted by the proposed outlet path, should the outlet be approved. Effective public participation in the NEPA process should include providing information on potential effects and mitigation measures of the proposed project, in consultation with affected communities.

Some Tribal respondents have expressed concern about construction and management of an outlet that would be located through Tribal lands, indicating that the Spirit Lake Sioux Nation should be full participants in the decision-making process in terms of location, construction, operation, and maintenance of this outlet. In addition, some low-income respondents in the direct path of the proposed pipeline have expressed concern about mitigation measures, including easements required for the pipeline and lack of compensation provided for damage done to property as a result of outlet construction.

- We recommend that definitive information be provided on the impacts of upper basin drainage on the level of Devils Lake.

The lack of consistent responses from study participants on the impact of upper basin drainage on the flooding at Devils Lake indicates that empirically verifiable information on the affects of drainage needs to be made available to residents in all areas of the Devils Lake Region. As mentioned earlier, this variable is potentially important in assessing impacts of the proposed Emergency Outlet on specific communities. A number of respondents expressed the view that the outlet is unnecessary if upper basin drainage is minimized or discontinued.

²⁸ *Environmental Justice: Guidance Under the National Environmental Policy Act*. Council on Environmental Quality. December 10, 1997, pg. 7.

- We recommend that the format and range of scoping meetings be expanded to take into consideration the needs and perspectives of diverse communities so that all participants are provided the opportunity to have their views included as part of the decision-making process.

A majority of respondents reported during the interviews that either they have not felt heard as a result of the scoping process, or felt heard, but did not feel that their views were acted upon. These findings bring into question the effectiveness of the scoping process for environmental justice communities in the Devils Lake area. Since the proposed paths of the Emergency Outlet are routed through low-income and Tribal communities, findings from this study point to a need for more focused outreach, considering different types of involvement for different populations.

- We also recommend that before scoping meetings are held, focused outreach efforts of the Corps of Engineers should include making assessments of the cultural values, character, and needs of each community.

Meetings and presentations should be specifically geared to address the concerns of diverse communities, collecting valuable input from residents and members, and providing information specific to their respective needs. CEQ guidelines for NEPA direct agencies to “acknowledge and seek to overcome linguistic, cultural, institutional, geographic, and other barriers to meaningful participation, and should incorporate active outreach to affected groups.”²⁹ In some cases, it may be beneficial to utilize non-technical persons to make presentations -- individuals who have familiarity with a specific community, such as a Tribal community, and who understand the traditions of those communities and the values they hold. Cultural sensitivity and inclusiveness should be an integral component of the information sharing process.

It is the recommendation of EPA that in line with the requirements of Executive Order #12898 on Environmental Justice, these potential implications to low-income communities and the Spirit Lake Sioux Nation be carefully and thoroughly considered as part of the NEPA decision-making process for the proposed Emergency Outlet at Devils Lake. The recommendations offered above would support the consideration of environmental justice in decision-making about water management in the Devils Lake Region.

²⁹ *Environmental Justice: Guidance Under the National Environmental Policy Act*. Council on Environmental Quality. December 10, 1997, p. 9.

Appendix A. Telephone Interview Questionnaire

Devil's Lake Social Impact Assessment - Interview Data

Questions:

- 1) What is the nature of your business/organization (type/size of farm, organizational focus, etc.)
- 2) Do you consider yourself (or your organization) a representative of any particular group?
- 3) What do you think should be done to deal with the flooding of Devils Lake?
(Why do you feel that way?)
- 4) What is your overall opinion of the proposed Devils Lake emergency outlet?
(Why do you feel that way?)
- 5) How would this project affect you? (Do you feel that you would benefit, or be adversely affected?
(Why do you feel that way? Where did you come across this information?)
- 6) Who else do you feel would benefit by this project?
- 7) In your view, who else would (or might be) adversely affected if this project were to go forward?
- 8) Are you aware of the scoping process that the Corps has been conducting? If so, have you taken the opportunity to make your views known in person at the meetings or by writing? If not, did you get a different opportunity to express your views?
- 9) Do you feel that your views have been fully heard? (Why or why not?)
- 10) Do you feel that other opportunities for full community participation needed to be offered?
(If so, what do you feel should have been done differently?)
- 11) Are there any other comments, thoughts, or ideas on water management in the Devils Lake watershed that you would like to share with us?
- 12) Are you (or would you like to be) on the Corps mailing list to get newsletters and other information? Would you like to receive a copy of EPA's comments to the Army Corps on the proposed outlet?
- 13) Are there other individuals (or groups) that we could contact for their input? (Why would they be a good person/organization for us to talk to?)
- 14) May we contact you again if we need to clarify any of the ideas you've shared with us?

- continued

Appendix A. Telephone Interview Questionnaire (continued)

The following questions were asked during the follow-up phase of the interviews (note: respondents were informed that responses to all questions were strictly voluntary):

- 1) Are there any new developments or opinions on the current situation that you'd like to share with us?
- 2) Are you (or those in your area) currently being affected by flooding from Devils Lake? Are you eligible for benefits under the USDA's Flood Compensation Program (recently announced)? If so, do you plan to apply for these benefits?
- 3) Does your household have more than one source of income?
- 4) Would you be willing to give an approximation of your yearly household income?
- 5) How many people are in your household (number of adults and children)?
- 6) Is the primary head of household over or under 65?
- 7) Would you be interested in getting involved with (or finding out about) the North Dakota Consensus Council's Devils Lake Basin Community Conversation? (If so, would you like us to provide you with information on contacting them?)
- 8) Is there any information we can help you with at this point?

Appendix B. Additional Comments on Outlet Options by Topic Area

Comments on the proposed west-end outlet
Feels that an underground pipeline, rather than a just a ditch would be better
Treat/ filter the water from Devils Lake - this would be necessary
Moving water in fall to make room for spring snowmelt would be the best plan
If a channel is dug, it needs to be a controlled channel, not going through all kinds of towns.
Should lay a "down tube" to draw water from the center of the lake without the need for pumps. Many farmers think this is a good idea.
Most of the Nelson County commissioners are in favor of an outlet
We have the talent and capacity to change the outlet design to handle the increased water and stabilize the lake
Need to increase current planned capacity from 200 cfs to 600 cfs
The tradeoff has to be maintaining water quality in the Sheyenne, and that Sheyenne River water quality could be improved by west end Devils Lake water; a west end outlet wouldn't degrade the overall lake water quality.
Downstream communities could benefit by having a series of small holding dams. Having 100 ft. dams within 20 miles could make recreational ponds and wildlife areas without consuming a lot of land.
Comments on/ideas for an east-end outlet
Would support an east-end outlet if the benefits outweighed the costs
Build a pipeline to carry water from Devils Lake to Stump Lake out to the Tolna coulee and then out to the Sheyenne River
An east-end outlet would create a nice recreation area near Stump Lake
Outlet should go through Minco (in Benson County), as this is the direct path of the water
Comments on the current proposal to channel water only into Stump Lake
Disagrees strongly with the "Stump Dump" plan - we need an outlet to the Sheyenne
Putting water into Stump Lake only would kill thousands of trees, and also affect the wildlife refuge
Don't just transfer water to Stump Lake and leave it there
Better to control eventual overflow from Devils Lake into Stump Lake, depending on rainfall levels
Channel from Stump Lake to Devils Lake might help if buying time is important
Other outlet proposals
Maybe take water underground from Devils Lake to Fargo, since they need water if a channel is dug, it needs to be a controlled channel not going through all kinds of towns
Build a control structure in Nelson County to control amount of water coming in from Devils Lake (but this could result in a lawsuit from Ramsey County to Nelson County). Also put in an outlet to the Sheyenne from the south.
Should work to improve the natural outlet, instead of constructing one
Also would be a good idea to do an east-end outlet with a west-end inlet, diking off water from the Sheyenne, forcing it into Devils Lake, creating a reservoir
Make an outlet through another slot at east end of Devils Lake - (not through Stump Lake); water would go around him with this plan - would go through Benson County and Spirit Lake Nation
There used to be a natural outlet through Spirit Lake that has since filled in
He feels that the best plan would be a basin - wide retention of water, a non-structural plan involving putting up gates and culverts to hold water from 5-6 days on farmland. This plan would slow down the water and avoid any serious flooding for the entire area.
Should dig a ditch directly from Devils Lake to the Red River (already too much water in the Sheyenne)

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Appendix B. Additional Comments on Outlet Options by Topic Area (continued)

Policy-oriented/regulatory comments
Have had trouble in the past with the Army Corps' and states' communication to their county
Army Corps has reassured them that Benson county will be a part of the discussion regarding a channel to Stump Lake
Everyone loses if water continues to flow uncontrolled
Would not help environmentally if water overflows naturally with no control (problems with quality and quantity)
Realize that the watershed has to be managed - need to make a decision and act on it
Reauthorization of Garrison Diversion was a mistake - should have kept to the original plan
There needs to be a commitment by federal government to address all aspects of water management
Need for other federal agencies (FEMA, COE) to develop a community - based approach
Integrate past, present and future
Feels that the Stump Lake option is not a good one - not long-term enough
Doesn't see the sense in the newest "Y" plan
Doesn't agree with the current west-end plan, but does feel that it shows a real plan
Need to just do something
Does the Army Corps have the auth. to do a channel from Devils Lake to Stump Lake - does this meet NEPA requirements?

Appendix C. Additional Comments on Other Water Management Options

Comments on natural processes
The long term cure for flooding is the weather (wet/dry cycles)
The lake will eventually reclaim its natural boundaries
The water will keep coming and go out of the east end naturally
Devils Lake is a closed basin
Flooding involves the entire basin, not just Devils Lake
The natural outlet cleanses the lake and other streams in its path
Flooding is largely due to heavy rains and snow melt
Current research has demonstrated the existence for a 175- year cycle; a 175 year cycle of drought/floods
Weather patterns have affected evaporation levels
It's important to look at the long run, since we're dealing with a natural phenomenon
Rivers are the key to the whole environment. - we shouldn't mess with them
Devils Lake will overflow into Stump Lake probably by next year
Technology is not always the best approach/solution
Man-made structures are now also blocking the natural drainage facility
Devils Lake probably won't rise that much due to the expanded lake surface
The lake has tried to go through its natural outlet (at Stump Lake), but man-made structures have halted this natural flow
Currently, higher lake levels are good for the fishery and good for the wildlife
North Dakota is very vulnerable to changes in climate due to their being between two different ecosystems
We should listen to the Spirit Lake people - they are wise and are among the few who have a real understanding of the Lake
Comments on man-made influences
Lagoons are being drained into Devils Lake, affecting water quality in a negative way (i.e. pesticides, manure, other fertilizers)
Development decisions made in 1920's ignored geological survey info
The City of Devils Lake was built at the point in that cycle where condition were extremely dry
Flooding is NOT generally caused by "acts of God"
Tribal Impacts
Tribal people are in a forced situation - they can't be nomadic and move to accommodate the lake as they once did
People consider the lake sacred -- it needs to do its own cleansing
Maybe the lake is angry and has its own way of expressing itself. If we don't get out of the way, it will run us over; the lake has been very patient with us up to this point
Impacts to human communities
Stump Lake would be at a disadvantage if Devils Lake overflows naturally
The lake is very unpredictable and has caused lots of problems
\$100 million in damage has been done so far

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Appendix C. Additional Comments on Other Water Management Options (continued)

Policy-oriented comments
Politicians seem to have a total lack of understanding of the NEPA process- they need to consider all the alternatives at the same time, not several years apart
Maybe a better idea is to use the entire basin as a recreation area (ducks, hunting, wildlife, etc.) rather than focusing on a farming/agricultural economy
Managing the lake level can be a benefit for both human settlements & for wildlife
We have to weigh the social good against economic good
North Dakota is backwards in the way it handles water
We should utilize the scientific community to get answers
We should continue infrastructure improvements (improve dikes and roads)
It's a local problem and should be handled locally
It may be more cost effective than other options to do buy-outs of certain parts of the Devils Lake community

Appendix D. Additional Comments on Upper Basin Drainage by Community

North and Northwest
It will be detrimental to the entire basin to continue drainage for long
There is an unfair advantage for upper basin farms - their land now is worth twice as much
Poor planning was involved in the original drainage plans - an outlet should have gone in first
Large equipment is an incentive for drainage – you can't use it on wet lands
The state looks the other way with regard to illegal drainage and doesn't care about flooding people in the lower basin
There is too much uncontrolled water -- one-half to one-third of it comes from upper basin drainage
People should be aware of where the water goes when it leaves their farm
Controlling upper basin drainage would help the speed of the water to DL, but not the overall quantity
We need to carefully manage upper basin drainage so as not to adversely affect downstream people
In the 1970s, those at Devils Lake welcomed the water from the upper basin, since lake levels were lower at that time
East
The natural flooding cycle has been exacerbated by human activity
Controlling upper basin drainage would help the speed of the water to DL, but not the overall quantity
Environmental groups want to block drainage of the wetlands
Stopping upper basin drainage would help, but would not stop the flooding altogether
South and Southwest
Even though it may be good for some farmers, it's not a good idea if it's bad for the environment
Much of the flooding is due to man-made phenomena
The Governor has not enforced the "swamp-busting" rules
Farmers up north are related to the county commissioners, who look out for their interests
Maybe there needs to be a choice between preserving farmlands and preserving wetlands
No one has given info. to the Tribe on upper basin wetland drainage – they need to know more about the actual impacts of this on Devils Lake
Drainage is a political issue – perhaps there is competition in the state to grow more wheat than Kansas
Closing illegal drains would help – we need to look more closely at the criteria for allowing drainage of upper basin wetlands
Upper basin drainage might make the overflow to Stump Lake happen more easily
The Tribe should get as much money as those up north for wetland storage
Southeast
Controlling upper basin drainage would help the speed of the water to DL, but not the overall quantity
Even though farmers get paid to store water, it's probably more lucrative to drain the wetlands
Downstream Communities
It would be good to have a two-year moratorium on draining of wetlands in the upper basin and see how much difference it makes, then use that time to do an intensive study on what is really going to be the best answer
Have heard that there are over 189,000 acre feet of wetlands being drained at this point
If upper basin wetlands were restored, more water could be stored than the outlet would remove
Channel A puts in much more water into Devils Lake than an outlet would take out
Upper basin drainage is a political situation
Use results from studies on upper basin water management to inform agencies
There is some dispute about the number of acres available for upper basin storage
Stopping upper basin drainage might allow people in Devils Lake to handle things locally
The State does not know what cumulative flow is from upper basin drainage
Sloughs and wetlands are pretty areas – we need to maintain these
If the water was held back it would seep in naturally, avoiding much of the flooding
Stopping upper basin drainage could take off the lake the same amount that an outlet would

**Appendix E. Additional Comments on Respondents' Perceived Impacts to
Themselves
of the Proposed Emergency Outlet by Community**

North and Northwest
Farm and cropland would be recovered if the proposed outlet goes in
West and Southwest
Pumps would pose noise and other problems
Our property taxes would go up
Spirit Lake Nation
An outlet would have a negative impact spiritually – the lake embodies spiritual values
Sediment would stay on the land after the water goes, make it difficult to grow crops
Dams would have to be put in downstream to control flooding; this would cause water to back up & flood the Reservation
Stump Lake Area
An outlet would protect roads in the Stump Lake area
There may be less flooding than they have now if the west-end outlet is built
Letting water flow "naturally" from Devils Lake to Stump Lake would be bad news for those in the Stump Lake area
Would there be compensation for buildings flooded as a result of an outlet?
It would negatively impact Nelson County if an east-end outlet went in (this would cause flooding from an increase in the level of Stump Lake and affect overall population in the area)
If an east-end outlet went in, yards in that area would be 17-18' deep in water
If water is put into Stump Lake only, roads and homes would be under water
An inlet/outlet through the east-end could provide stabilization for Stump Lake
Downstream Communities
There would be an increase in state taxes
Water quality in the Sheyenne River will be negatively impacted if the proposed outlet is built

**Appendix F. Additional Comments on Perceived Environmental Impacts
of the Proposed Emergency Outlet**

Additional Comments
It's important to have the EPA look at the Army Corps' plans from an environmental standpoint
If a west-end outlet goes through, may have to upgrade water before it comes across Tribal lands
People on the Sheyenne have who live right near the river -- there might be negative impacts on their health
As the climate gets dryer, the freshest water will have been taken out of the Lake
What are overall affects on the ecosystem?
Aquifers would be contaminated as well
No one really knows what impact on water quality would be
Devils Lake water is incompatible with Red River water
The Army Corps says water quality will not be a problem, but theirs is not a perfect science
A west-end outlet would satisfy Canada in terms of water quality
Doesn't feel that water quality will be a problem (doesn't see the Lake water as that bad)
Not enough water involved to flood anybody out
Water quality might even improve downstream
Looking at the Red River water quality, new water from Devils Lake might help things

Appendix G. Additional Comments on Perceptions of Opportunity for Community Involvement in the Army Corps Scoping Process by Tribal and Non-Tribal Respondents

Tribal Respondents
The Army Corps planned to have "cooperative agencies" for the outlet project. Spirit Lake Nation council on Environmental. Quality asked to be one of these agencies, but Army Corps didn't treat their application seriously – they misunderstood their intentions
The Army Corps should not have tried to force the Tribal Council to accept the outlet
The Army Corps didn't talk to those who would be most affected -- those downstream
Educational meetings would have been better
They should have held larger-scope meetings instead of smaller, closed meetings
The meetings should not have been about one group trying to fix their own problems – there should have been a cooperative effort
The Army Corps should have provided more opportunity for people to speak their minds
They should have tried to make a connection with the Spirit Lake community - not just the Tribal Government
The Army Corps plans ignore sacred sites– the plans are to build right through these sites
The Army Corps put in stakes (and in one case a pillar) without notifying property owners
The Army Corps referred to Spirit Lake Nation as people "on the other side of the lake." He thinks they did this so it wouldn't look as though they were negatively impacting a non-white group of people
The Tribe didn't have that much input on the outlet plans because they didn't want to
It feels that the Army Corps was trying to keep them in the dark to get the outlet through
Their community would have liked a discussion on the NEPA process
The Army Corps worked with Tribal-oriented ideas
Army Corps didn't include tribe enough in earlier discussions, but realized later that they had to do this
Non-Tribal Respondents
The Army Corps could have presented more advertising, showing that they have learned from the input they have received and have been listening to different issues and points of view (i.e., publish an article written in layman's terms)
The Army Corps has been very careful, not jumping into things without considering all the actions
The Army Corps treats you with respect and welcomes your opinion
There was a good media campaign about the project
Army Corps has changed management too often -- this causes problems
Army Corps is only listening to people in Devils Lake and to county commissioners
The Army Corps doesn't care about the opinions of the scientific community
Army Corps should have held more virtual flood model workshops - it may have changed people's minds about the efficiency of an outlet
The State responded to 36 proposals, and the outlet was the strongest
Army Corps exercised "due diligence" in carrying out their responsibility to inform the public, etc.
NEPA is the only regulation the Army Corps will respond to
The Army Corps should have involved the scientific community more than they have
They keep trying to satisfy everybody and they're not satisfying anybody
Feels that the Scoping meeting were a farce
The Army Corps didn't know what they were talking about - local residents were better informed

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**Appendix G. Additional Comments on Perceptions of Opportunity for
Community Involvement
in the Army Corps Scoping Process by Tribal and Non-Tribal Respondents
(continued)**

Non-Tribal Respondents (continued)
They need to let local residents have a say in things
The State Engineer wanted the outlet no matter what anybody else thought
Those in Devils Lake have more political clout (and they want a Stump Lake outlet)
No plans have been made for any compensation from flooding on the Sheyenne – the Army Corps didn't have any answers about how potential damage or loss would be addressed
The Army Corps should have done more to provide answers to people's questions
Attended a meeting where a farmer was "snapped at" by the Army Corps expressing an opposing view
Environmental groups should have held meetings as well -- not just Army Corps – or a more neutral forum, where people would feel comfortable expressing viewpoints different from the Army Corps or state or Devils Lake officials
If they took a vote, almost all those along the Sheyenne would object to the outlet project
Army Corps needs to communicate more about proposed options (Stump Lake project, etc.)
The Senate hearing provided little opportunity for input from environmentalists – there was an unfair emphasis on those in favor of the outlet
The Army Corps told them “how it was going to be” in terms of putting an outlet through their property; they did not discuss things ahead of time with those whose property would be affected
The scoping meetings presented the view that the Army Corps wants the outlet to go in – it feels that they already have their minds made up
The fill-out form prioritizing the issues was too limited -- people felt intimidated
The Army Corps should have sent out non-technical people to talk to the public
Feels that the Army Corps hands are tied, due to the Fish & Wildlife Service
The Army Corps installed a huge cement monitoring well on a neighbor's property with out even asking him
People downstream don't want to do anything to help the people in Devils Lake, because of the way that the Army Corps has handled things

Appendix H. Primary Attitudes/Values by Tribal and Non-Tribal Respondents

Description	Tribal Respondents N = 9		Non-Tribal Resp. N = 36	
	#	%	#	%
Protect economic development	1	11	2	6
Protection of income/livelihood	1	11	6	17
Protection of property (farmland, ranchland, and homes)	4	44	22	61
Protection of natural resources (banks, trees, etc.)	2	22	11	31
Protection of wildlife or habitat	1	11	5	14
Protection of cultural/spiritual resources	6	67	1	3
Protection of watersheds/water quality	1	11	8	22
Protection of sovereignty (tribal, community, etc.)	5	56	4	11
Protecting the interests of human communities (over animals, etc.)	1	11	5	14
Rethink our relationship to the natural world; realize that we need to adapt to nature; get away from the idea of conquering nature; look at human decisions and how they interfere with natural phenomena	1	11	7	19
Other ideology/values	1	11	3	8

* Other ideologies/values mentioned by Tribal respondents included the view that the challenge is for all groups to work together and the protection of infrastructure. Other ideologies/values mentioned by non-Tribal respondents included the need to question technology; the need to manage the water so it does not manage us (i.e. the need aggressive action plans); and the view that North Dakota is not unique in that people who live in flood zones know they are at risk, and continue to live there anyway.

Appendix I. Primary Attitudes/Values by Community

Description	North-Northwest N = 7		West-Southwest N = 6		Spirit lake Nation N = 9	
	#	%	#	%	#	%
Protect economic development	2	29	0	0	1	11
Protection of income/livelihood	2	29	2	33	1	11
Protection of property (farmland, ranchland, and homes)	6	86	4	67	4	44
Protection of natural resources (banks, trees, etc.)	0	0	0	0	2	22
Protection of wildlife or habitat	0	0	0	0	1	11
Protection of cultural/spiritual resources	0	0	0	0	6	67
Protection of watersheds/water quality	0	0	2	33	1	11
Protection of sovereignty (tribal, community, etc.)	0	0	0	0	5	56
Protecting the interests of human communities (over animals, etc.)	1	14	0	0	1	11
Rethink our relationship to the natural world; realize that we need to adapt to nature; get away from the idea of conquering nature; look at human decisions and how they interfere with natural phenomena	0	0	1	17	1	11
Other ideology/values	0	0	0	0	1	11

Description	Stump Lake Area N = 7		Downstream Communities N = 8		Red River Communities N = 8	
	#	%	#	%	#	%
Protect economic development	0	0	0	0	0	0
Protection of income/livelihood	1	14	1	13	0	0
Protection of property (farmland, ranchland, and homes)	6	86	3	38	1	13
Protection of natural resources (banks, trees, etc.)	2	29	7	88	2	25
Protection of wildlife or habitat	1	14	3	38	1	13
Protection of cultural/spiritual resources	0	0	1	13	0	0
Protection of watersheds/water quality	0	0	3	38	3	38
Protection of sovereignty (tribal, community, etc.)	3	43	1	13	0	0
Protecting the interests of human communities (over animals, etc.)	3	43	1	13	0	0
Rethink our relationship to the natural world; realize that we need to adapt to nature; get away from the idea of conquering nature; look at human decisions and how they interfere with natural phenomena	0	0	3	38	3	38
Other ideology/values	1	14	1	13	1	13

**Appendix J. Respondents' Perceptions of Structural Impacts
from the Proposed Emergency Outlet by Community**

Description	North-Northwest N = 7		West-Southwest N = 6		Spirit lake Nation N = 9	
	#	%	#	%	#	%
An outlet would only take a few inches off the lake, at best	1	14	5	83	3	33
An outlet could take up to a foot per year off the lake level	2	29	0	0	0	0
An outlet will not prevent flooding if precip. levels stay high	0	0	0	0	1	11
An outlet would protect farmland/pastureland around DL	1	14	0	0	1	11
A west-end outlet would be better for water quality	1	14	1	17	1	11
An east-end outlet would freshen water in DL (west-end would pull highest quality water off)	5	71	3	50	1	11
Downstream recreational areas will be neg. impacted/altered	0	0	0	0	1	11
Historical areas will be negatively impacted	0	0	0	0	1	1
Cultural/spiritual resources will be lost or neg. impacted	0	0	0	0	2	22
There would be a negative impact to our community's culture or history	0	0	0	0	2	22
To some degree would be able to control the lake level	4	57	1	17	0	0
Could not pump water that many months of the year (especially during summer when Sheyenne River is high)	0	0	0	0	0	0
Would increase danger of flooding downstream, or cause the Sheyenne to run at capacity all year round	1	14	0	0	0	0
Other structural/cultural impacts	2	29	2	33	1	11

Description	Stump Lake Area N = 7		Downstream Communities N = 8		Red River Communities N = 8	
	#	%	#	%	#	%
An outlet would only take a few inches off the lake, at best	1	14	7	88	4	50
An outlet could take up to a foot per year off the lake level	0	0	0	0	0	0
An outlet will not prevent flooding if precip. levels stay high	0	0	1	13	2	25
An outlet would protect farmland/pastureland around DL	0	0	0	0	0	0
A west-end outlet would be better for water quality	1	14	0	0	1	13
An east-end outlet would freshen water in DL (west-end would pull highest quality water off)	2	29	0	0	0	0
Downstream recreational areas will be neg. impacted/altered	0	0	3	38	1	13
Historical areas will be negatively impacted	2	29	1	13	0	0
Cultural/spiritual resources will be lost or neg. impacted	0	0	1	13	0	0
There would be a negative impact to our community's culture or history	0	0	1	13	0	0
To some degree would be able to control the lake level	4	57	0	0	0	0
Could not pump water that many months of the year (especially during summer when Sheyenne River is high)	0	0	1	13	1	13
Would increase danger of flooding downstream, or cause the Sheyenne to run at capacity all year round	0	0	2	25	1	13

Other structural/cultural impacts	2	29	3	38	2	25
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